April 1988 $2.95
Canada $3.50

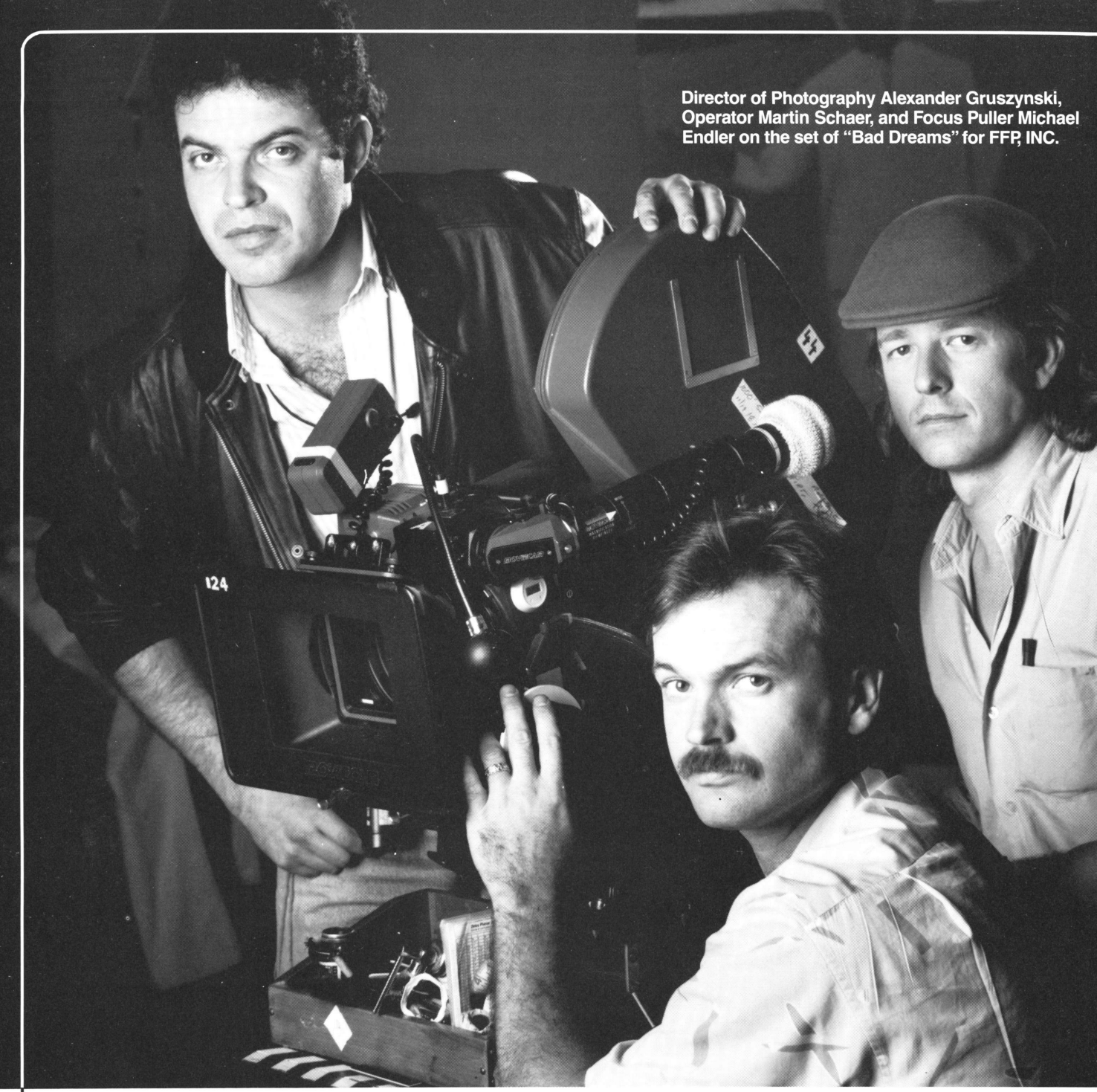
The Bizarre World of *Beetlejuice*

American Cinematographer

74470 12797 04

Statues and Plaques: It's Awards Time!

The Aussie Way With *Rikky & Pete*



Director of Photography Alexander Gruszynski, Operator Martin Schaer, and Focus Puller Michael Endler on the set of "Bad Dreams" for FFP, INC.

QUIET RELIABILITY.

Director of Photography Alexander Gruszynski was wrapping his sixth film shot with Moviecam. And once again he was completely satisfied.

The camera gear had run smoothly for eight weeks of continuous shooting, under every condition. Says Alexander, "Last winter we shot outside with a windchill factor of −5°. Then we worked in the damp Louisiana bayous with temperatures in the 100's. I am delighted that a camera with such sophisticated electronics is consistently reliable, even in such extreme weather."

On the sound stage, Alexander peered through the Moviecam Super America camera. He explained, "What's crucial to me is that Moviecam accepts 'PL' mounted lenses (in this case Zeiss primes). Of course sound level is also extremely important. And the Moviecam is always so incredibly quiet which makes such a difference to the whole process of shooting."

It takes more than a reliable and quiet camera to satisfy Alexander Gruszynski. Backup and support are just as vital. For Gruszynski, Moviecam Super Rental has always come through. That's why he's called them before. And that's why he'll call them again.

MOVIECAM SUPER RENTAL

1150 South Robertson Blvd. □ (213) 278-4956
Los Angeles, CA 90035 □ FAX: (213) 278-4958

Backed by the resources of Cinema Products

Film stars love New York, and Panavision is no exception. One reason is that this town demands the Best. It's either measure up or move over. "Excuses Not Spoken Here." And that's Panavision's style.

So when it comes to Panavision quality, we pull out the stops. And have for years. We've meticulously groomed our equipment, assembled it for major productions, seen it work under every possible condition, and listened carefully to responses from the best in the business.

We guarantee that when you *say* Panavision, you *get* Panavision. Not excuses.

We know that when you want the best, good won't do. *GET THE GENERAL IDEA.*

Distributors for Panavision Cameras and Lenses; Chapman Dollies and Cranes.

540 W. 36 St., NYC, 10018, (212) 594-8700, Telex 14-7136

GENERAL® CAMERA

When you say *Panavision*® back East, you've said *General Camera*.

A Balanced Way of Light
Now you don't have to turn off the overhead fluorescents in supermarkets, hospitals, showrooms, and offices, then light the entire area; or settle for ugly, out-of-balance images. The new **Lowel Light-Array** floods the scene with beautiful front fill or side modeling. You can often leave the fluorescent tubes at home and borrow standard, four-foot, on-site spares. This will assure perfect color balance with the ceiling fluorescents. This eight square-foot, cool, shadowless, three-amp source operates horizontally and vertically. The **Lowel Light-Array.** A well-balanced way of light that can do wonders for your subject—and your schedule.
LOWEL
LIGHT-ARRAY
his fast-folding fluorescent-fill phenomenon travels in one portable case, with its air-cushioned stand, electronic ballast, boom, and barndoors.
Lowel-Light Manufacturi
475 Tenth
New Yo
1001
212
lowel

The International Journal of Film and Video Production Techniques

April 1988 Vol. 69 No. 4

American Cinematographer

Features

28 **Two Candidates for Special Effects Awards**
Innerspace, Predator vie for Academy nod

38 **Folsey Given First ASC Lifetime Achievement Award**
Reminisces about his early years in film

48 **Theatrical Cinematography Noted by ASC, Academy**
Nominations indicate diversity of talent

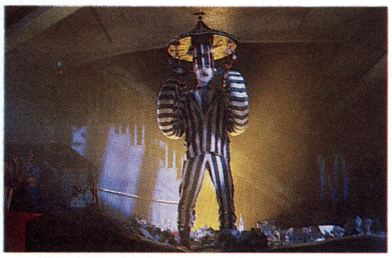
66 **ASC Honors Television Cinematographers**
First awards note 1987 achievements

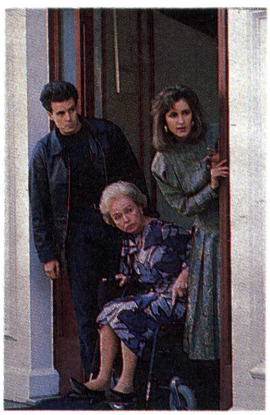
74 **Eccentric Is the Word for *Beetlejuice***
A photographic transport to the afterlife

90 **Australian Backdrop for *Rikky & Pete***
Red dust, black hole challenge crew

98 **Reflections II**
Poster holds forth in seminar

103 **Videotape Records Thunderbirds in Flight**





Departments

10 **Letters**

14 **What's New**

24 **The Bookshelf**

107 **VideoGram**

108 **Classified Ads**

112 **Ad Index**

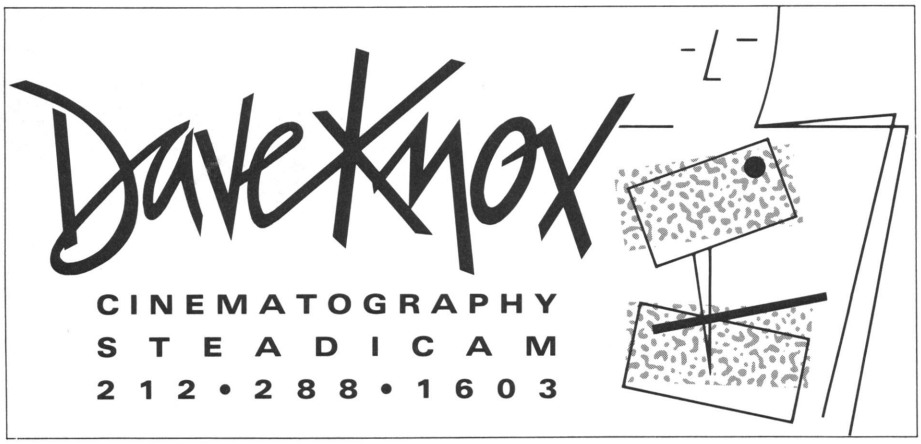
113 **From the Clubhouse**

114 **In Memoriam**

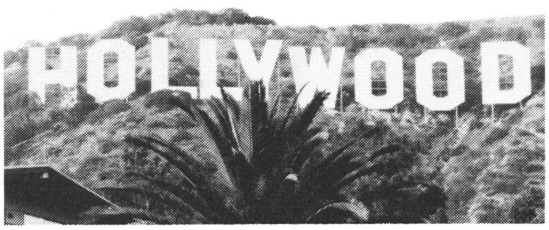
116 **The Last Page**

On Our Cover:
Beetlejuice, from the picture of the same name. (Photo by: Jane O'Neal)

Contributing Authors:
David Heuring
Ron Magid
Benjamin Bergery
Erica Shames
Bob Fisher



Now get the same service and equipment on this coast...



as you do on this coast.

East Coast or West Coast. Now the same complete selection of sophisticated video equipment you've come to expect from Camera Mart/New York is yours to rent or buy from CMTV/Burbank.

The same great service, too. Because with your continued support, we've been able to expand CMTV to a full-fledged West Coast operation, complete with repair and maintenance facilities.

So now you can have the best of both coasts.

We've been big in video since it was small.

CMTV Inc.
Affiliated with
The Camera Mart, Inc.
SALES • SERVICE • RENTAL

1900 W. Burbank Boulevard, Burbank, CA 91506 (818) 843-6644
Headquarters/New York 456 West 55th Street, NY 10019 (212) 757-6977
Telex: 275619/FAX (212) 582-2498

American Cinematographer

George Turner
Editor

Martha Winterhalter
Art Director

Jean Turner
Associate Editor

Patricia Armacost
Circulation Director

Barbara Prevedel
Accounting

Angie Gollmann
Advertising Sales Director

Margaret Gentleman
Classified Advertising

George L. George
Book Reviews Editor

Publications Advisory Committee

Victor Kemper, *Chairman*
Don Birnkrant, *Co-Chairman*
Linwood Dunn
Milton Krasner
Philip Lathrop

American Cinematographer (ISSN 0002-7928) established 1920 in 67th year of publication is published monthly in Hollywood by ASC Holding Corp., 1782 N. Orange Dr., Hollywood, California 90028, (213) 876-5080, U.S.A. Subscriptions: U.S. $22.00; Canada/Mexico $27.00; all other foreign countries $32.00 a year (remit international Money Order or other exchange payable in U.S.). Advertising: rate card on request to Hollywood Office. Copyright 1986 ASC Holding Corp. Second-class postage paid at Los Angeles, California and at additional mailing offices. **Postmaster:** send address change to ASC Holding Corp., P.O. Box 2230, Hollywood, CA 90078.

HMI's from LTM

A Daylight-Fill Experience.

THERE'S REALLY NOTHING QUITE LIKE THEM.

LTM'S attention to the smallest of details guarantees performance you can depend on, shoot after shoot. And no matter what you're shooting, only LTM's exceptional selection of HMI's, from Fresnels and Cinepars to Softarcs and Fiberoptic Multistrands gives you the flexibility to choose just the right lights for every set-up.

With a coast to coast network of Sales and Rental Service Centers throughout the U.S. and Canada, product availability and expert technical assistance are just a phone call away.

We love our lights! So will you . . .

LTM

CALIFORNIA • NEW YORK • FLORIDA • MICHIGAN ONTARIO

LTM CORPORATION OF AMERICA
1160 N. Las Palmas Ave., Hollywood, CA 90038 • (213) 460-6166
Telex 677693 FAX (213) 460-6175
LTM CORP. OF AMERICA (FL), 909 N.W. 10th Terrace,
Ft. Lauderdale, FL 33311 • (305) 522-1070
LTM CORP. OF AMERICA (FL), 1509 Pine Ave., Orlando, FL 32824 •
(305) 859-0409
LTM CORP. OF AMERICA (NY), 437 West 16th St.,
New York, NY 10011 • (212) 243-9288
LTM CORP. OF AMERICA (MI), 36875 Schoolcraft Road,
Livonia, MI 48150 • (313) 464-1103

LTM CORPORATION OF CANADA
1665 Enterprise Road, Mississauga, Ontario L4W 4L4 •
(416) 672-5464 FAX (416) 672-2688

A subsidiary of LTM France
Other Offices in London, Paris, Nice and Cologne.

SUPER-SCREEN (THE BREECH-LOADER)

FASTEST LOADING/UNLOADING WINDSCREEN SYSTEM MADE IN THE WORLD

✓ *Super Quiet*
✓ *Super Light*
✓ *Super Strong*

SUPER-SCREEN FEATURES:

- PURE POLAR PATTERN
- ENHANCED MID-RANGE (DIALOGUE)
- NO db LOSS IN MID-RANGE
- REDUCED SIBILANCE/RUMBLE
- HIGH WIND NOISE ATTENUATION 25+ db WITH SCREEN ALONE
- SUPER SLIMLINE PROFILE
- 4 PIN, 4 POS. BAYONET LOCK
- EXTREMELY LOW SOUND BOUNCE
- CONTOURED HI WIND COVER
- UNAFFECTED BY RAIN AND SNOW
- CABLE EXIT AT SHOCKMOUNT

SUPER-MOUNT FEATURES:

- QUIETEST & ORIGINAL ISOLATOR DESIGN
- UPPER AND LOWER TWIN VEE WAY JAWS SLIP INTO WINDSCREEN BREECH & LOCK
- VARIABLE SOFT TO HARD SUSPENSION
- MODULAR DESIGN — INTERCHANGEABLE ISOLATOR CRADLES
- USE PISTOL GRIP OR FISHPOLE YOKE

LIGHT WAVE SYSTEMS

7760 BURNET AVE., VAN NUYS, CA 91405 U.S.A.
PH. 818/780-3002 TELEX 690092 LIGHT WAVE UD
Dealer Inquiries Welcome

PROVEN EXCELLENCE AT YOUR COMMAND!

LIGHTS, CAMERA, ACTION!!!

DYNASTY, 60 MINUTES, A-TEAM, FALCON'S CREST, KNIGHT RIDER, DISNEY, MGM, 20th CENTURY FOX, NASA, JACQUES COUSTEAU, etc.
Our customers demand excellence.
They know that good pictures require good lighting, and **COOL-LUX** makes the best.

LARRY WILCOX,
Director/Actor/Producer
Ray Bradbury HBO Theatre

MICRO-LUX *"THE CAMCORDER LIGHT"*

Greatly improves picture quality of Low-Lux cameras. This ingenious micro light uses only 35 watts at 12 V. DC (or AC via adaptor). Will run off **(OLYMPIC)** L-6.5 for two full hours. Quartz 3200°K lamp (included). Life 2000 hours.

Size: 3¼"x1¾"x1¾"
Weight: 3 oz.
5 Colors
Material: Aluminum

GUARANTEED TO IMPROVE CAMCORDER PERFORMANCE OR YOUR MONEY BACK!

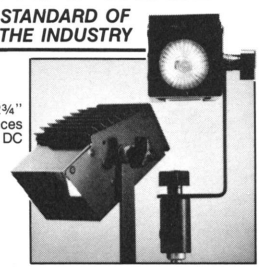
L-6.5 **PACK** (6.5 AH)
Weighs 5¼ lbs.
8 Colors

OLYMPIC L-13 (13 AH)
Weighs 12 lbs.
OLYMPIC L-20 (20 AH)
Weighs 16¾ lbs.

OLYMPIC *12-VOLT POWER BELTS & PACKS*

- Up to 1500 recharges.
- More power than NI-CADS (**AT LESS THAN HALF THE COST.**)
- No **"MEMORY"** effect.
- Exceptional deep discharge recovery.
- **BELTS** have built-in charger and voltage monitor circuit with L.E.D. indicators.

MINI-COOL
STANDARD OF THE INDUSTRY



4⅝"x2⅝"x2¾"
12 ounces
AC or DC

From major Hollywood studios to the space shuttle's cockpit, the **MINI-COOL** has proven itself the best photo/video light in the world.
Sixty support accessories help you get professional results.

You'll be proud of your brilliantly taped memories.

COOL-LUX
lighting ind. inc.
5723 AUCKLAND AVE. N. HOLLYWOOD, CA 91601-2207

FOR DEALER NEAREST YOU
800-ACDC-LUX
(=223-2589)
IN CA 818-761-8181

American Society of Cinematographers

The American Society of Cinematographers is not a labor union or a guild, but is an educational, cultural and professional organization. Membership is by invitation to those who are actively engaged as Directors of Photography and have demonstrated outstanding ability. Not all cinematographers can place the initials ASC after their names. ASC membership has become one of the highest honors that can be bestowed upon a professional cinematographer, a mark of prestige and distinction.

Officers

Harry Wolf
President
Leonard South
Vice President
Charles Wheeler
Vice President
Victor Kemper
Vice President
Joseph Westheimer
Treasurer
Alfred Keller
Secretary
Jack Cooperman
Sergeant-At-Arms

Members of the Board

Howard Anderson, Jr.
Joseph Biroc
Jack Cooperman
Stanley Cortez
Linwood Dunn
William Fraker
Milton Krasner
Philip Lathrop
Michael Margulies
Richard L. Rawlings
Lester Shorr
Leonard South
Ted Voigtlander
Joseph Westheimer
Harry Wolf

Alternates

Richard Glouner
Alfred Keller
Victor Kemper
Sherwood Omens
Charles Wheeler

Museum Curator

Kemp Niver

Your Choice of Canons.

Canon Custom Primes by Century

Meet our family of high performance specialty optics specially modified by Century Precision Optics to suit the stringent demands of professional motion picture and video applications. Most feature exotic low-dispersion (ED) glass and state-of-the-art coatings which minimize chromatic aberration and yield outstanding color correction and image sharpness.

The majority of Century Custom Primes provide convenient internal focusing and manual diaphragms calibrated in 'T' stops. To maximize versatility, most Custom Primes are equipped with Century's exclusive Interchangeable Mount System. Century's variety of Interchangeable Mounts include: Aaton, Arri B, S, and PL, Bolex, BNCR, Eclair, "C" mount, CP-16R, "T" mount, Mitchell R35, Panavision, Ikegami, Sony, and many more. Century also offers matched Canon 1.4X and 2X Tele-Extenders.

Custom Primes come in a variety of focal lengths including: 14mm, 135mm, 200mm, 300mm, 400mm, 500mm, 600mm, 800mm, and 150–600mm. Each Century Custom Prime is fully-warranteed by Canon USA and Century Precision Optics.

Canon K-35 Lens Series

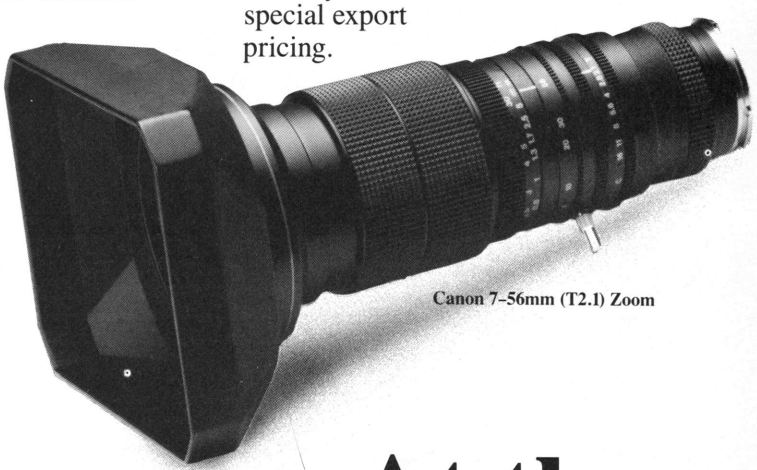
The Canon series of aspheric prime lenses for 35mm cinematography are ideal for low-light level cinematography. These high speed aspheric lenses offer excellent contrast and reduced flare. Super spectral coating optimizes color balance. The K-35's are available in either Arri PL or BNCR mounts.

The Canon K-35 lenses are available in a range of focal lengths: 18mm (T1.5), 24mm (T1.5), 35mm (T1.3), 50mm (T1.3), and 85mm (T1.3).

Canon 7–56mm (T2.1) Zoom

Canon offers the widest angle 16mm zoom on the market, the 7–56mm zoom lens. This versatile lens features a 7mm focal length which yields 35% greater coverage than a 10mm lens. And the 7mm focal length provides a full 72.5° super wide angle field of view! For those closeup shots, the lens focuses to less than 2′ from the focal plane. The lens' convenient internal focusing system makes it easy to use matte boxes and special effects filters.

When you think Canon, call Century. And ask about our special export pricing.



Canon 7–56mm (T2.1) Zoom

Canon K-35 Lens Series

At the Best Prices in the World.

Century precision optics
A DIVISION OF CENTURY PRECISION INDUSTRIES, INC
10713 BURBANK BLVD., NORTH HOLLYWOOD, CA 91601
PHONE: (818) 766-3715 FAX: (818) 505-9865
TELEX: 066-2419 ANSWER BACK: CENTOPTICS LSA

Another unique custom tool: Our new Clairmont Strobe

Inexpensive, compact, lightweight, flexible. Easy to use, needs no special operator. Runs on 110V. Syncs automatically at any speed with our 35BLs, 35-IIIs, 16SRs, Frieses, Mk IIs.

Strobe Lampheads are both lightweight and compact. Small size lets you position heads precisely and get in close for big-source effect. Lampheads can be mounted horizontally or vertically.

For a *really* sharp image of a moving subject, you need a short exposure time. At 24 fps in normal light, your exposure is about 1/50 second, of course. With the Clairmont Strobe, it's 1/50,000 second.

Exposure is same at any camera speed: 1/50,000 second

No matter what your camera speed, the Strobe exposure is the same. You can change speed during a shot—no need to change the iris. Except for "disco" effects, there's always one Strobe flash per frame. Flash duration is always 1/50,000 second.

In fact, the Clairmont Strobe fires *twice* per frame—once for the film while the shutter is open, once for the viewfinder while the shutter is closed. We call that one flash sequence per frame.

Automatic sync to camera shutter

The slowest Strobe speed is one flash sequence every sixteen frames. The fastest is the maximum speed of our cameras—125 flash sequences per second. Automatically synced by the camera's electronic shutter pulse.

Seeing each individual burst of water from a pulse shower head

At 1/50,000 second and 120 fps, you can easily see the individual water pulses from a pulsating shower head. At 120 fps with regular lighting, the water would be hopelessly blurred. At 1,000 fps, the pulses would be sharp. But the action would be so slowed down that it would lose reality.

The important point is this: strobe lighting is for super sharpness; ultra high speed is for slow motion. They're not the same.

"Liquids come alive," says Ralph Chandler

Cameraman/Director Ralph Chandler of Star Turn has used the Clairmont Strobe on several table-top commercials. Backlit champagne gushing out of the bottle, for example, against a black velvet background. "Strobe light makes liquids come alive," he says.

"You can really see what's going on, in sharp detail," says Mr. Chandler. "And with strobe light, you don't need to use ultra high speed to get that effect. So you can show more in the same screen time; and the action keeps its energy."

Speed change during shot

An example: Camera running at 24 fps. Hand holding box of cornflakes enters frame. Zap camera to 120 fps. Hand begins to pour cornflakes. When bowl is full, hand stops pouring. Camera back to 24 fps. Hand and box exit frame. Exposure throughout is 1/50,000 second. No blur.

Incidentally, it's an M.O.S. system. The Strobe lamps

and the electronics cooling fans make noise—somewhat less than a 35-3 running at 120 fps. Cool running means you can shoot, for example, ice cream. And taping gels is no problem. Strobe color temperature is 7,000° Kelvin.

It's the *Strobe* that gives you the blur-free image, not camera speed; you can use speed for *other* effects.

Director of Photography Larry Boelens used a Clairmont Strobe for a Budweiser commercial. One of the series in which the customer asks for a Light and gets all sorts of surprise lighting effects instead of a beer—until he learns to ask for a *Bud* Light.

Budweiser Disco

"In this one, the storyboard called for a disco scene with strobe lights," says Larry Boelens. "The agency copywriter didn't know that regular strobes wouldn't sync with the camera. And yet those strobe lights were the central feature of the commercial."

"Without the strobe, we couldn't have shot it as written," says Larry Boelens

"Without the Clairmont Strobe, we couldn't have shot it as written. Just splicing in flash frames wouldn't do it, in this case—we needed to see the strobe lights hit the actors and create their own shadows."

Needed no familiarization

"I had never used this strobe system before," says Mr. Boelens. "So I called Denny and he explained it to me on the phone. Seemed perfectly simple. So we shot a test to find out what rate we wanted. (One strobe every five frames.) That test was all the familiarization we needed."

Five or six times less expensive

"The big advantage of working with the Clairmont Strobe," says Ralph Chandler, "Is that the shot can end up costing five or six times less. You spend at least a half day on one high-speed or strobe setup. And you always need to shoot a test. That's *two* half-days."

Fewer people, less equipment

"Usually, I'm already budgeted for one crew and the Arriflex. I find I save by not hiring another operator for the high-speed camera, by not renting that camera, by not renting the high-speed strobe (which costs more) and by not hiring the operator that comes with it. I also save by using less film. High speed *eats* film."

$7,000 or $8,000 extra for one shot

"And the Clairmont Strobe is faster to work with," says Mr. Chandler. "When you add all these things up for the two half-days, the high-speed rig and crew can cost you $7,000 or $8,000 extra. That's for *one shot*."

Sharpness you can't get any other way:

Specs and Facts

The Clairmont Strobe system Lampheads measure 17 × 10 × 7 inches and weigh 10½ pounds. Each one comes with a light-stand yoke and a Powerpack. The Powerpack measures 16 × 12 × 6 inches and weighs 46½ pounds. Its suitcase-type handle makes it easy to carry.

Use any number of Lampheads

The usual setup is two or three Lampheads—but people have used as many as eight. They all fire in sync automatically. Each Powerpack/Lamphead runs on 110 volts, draws 10 amps and delivers 250 foot-candles at 4 feet.

Sync Control

The Sync Control box automatically relays the sync signal from the camera. It has settings for flash-sequence rate (marked in frames), film-and-eyepiece or film-only, 35mm or 16mm, master on/off.

Flexibility

To see the effect, you can also switch each individual Lamphead on and off while the Strobe system is running but the camera isn't. And there's a low-power switch on each Powerpack that gives you one stop less.

Preview Box for lighting setup

With the Preview Only box, you can run all the Lampheads at 61 flashes per second, without running the camera. At that speed, the strobe lights look almost like regular AC light. You can look through the camera and position the Heads for the effect you want.

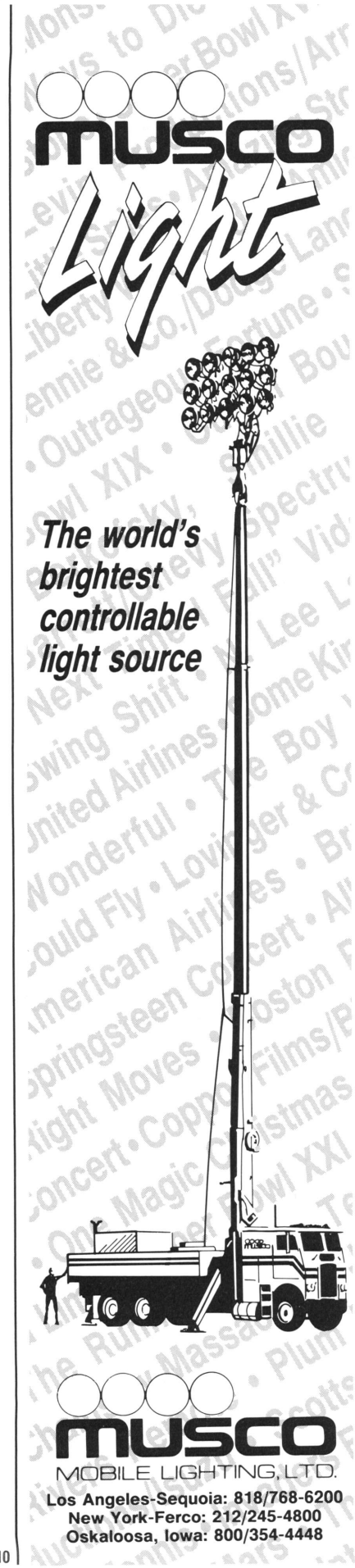
Automatic Lightmeter

The Clairmont Strobe system also comes with a digital Lightmeter. Its LCD readout gives you incident readings in f/stops, while you run the system with the Preview Box. You program the film ASA into the Lightmeter—everything else is automatic.

Sync Control, Preview Box and Lightmeter are small, easy to use. Cool running makes it simple to shoot ice cream.

CLAIRMONT CAMERA

4040 Vineland, Studio City, California 91604 • (818) 761-4440
238 East 1st St, N. Vancouver, B.C. V7L 1B3 • (604) 984-4563



Letters

Mystery Question

Whilst preparing for a seminar, it came to my notice that I could not ascertain, categorically, the reasons for the chosen filming speed of 24 fps for theatrical release.

Some say this is for sound recording reasons, others that it was a logical 50% increase from the silent 16 fps days.

Perhaps you could enlighten me as to when, where and more particularly, why 24 fps was the chosen speed.

—Alan Piper MBKS
Heston, England

Perhaps a reader will tell us. —Ed.

Praise for 'Empire'

Just recently, I have seen an issue of your magazine, American Cinamatographer, with the young British star of *Empire of the Sun,* and now I realize that your magazine recognizes all cinematographic talents, not only the "superduper, really neat-o," fantastic special techniques, and special effects – a magazine for all interested in movies.

To me, *Empire of the Sun,* was a movie that proved that the quest for peace is one of the only quests that yield true victory.

—Daniel P. Wilkins,
N. Olmsted, OH

Not Anamorphic

This is in response to recent letters from Greg Jennings and Richard A. Strain concerning the Warner Bros. letterbox video version of *The Color Purple.* Both gentlemen seem to be under the mistaken impression that the film in question was originally photographed in an anamorphic CinemaScope-type process and has thus been cropped somewhat in its current video release. This is not the case.

Like many contemporary films, *Color Purple* was photographed in a 1:66-1 format which masks off the top and bottom of the frame in-camera to produce a wide screen effect. Therefore the screen ratio seen on the Warner cassette represents the actual dimensions of the frame as photographed and seen in theatres. A TV-screen-filling 1:33 version would, of course, crop the sides of the picture.

I've been fortunate in having my own picture, *Innerspace,* released by Warner Video in its correct 1:66-1 letterbox ratio, but I'm sorry to report that the majority of cable-TV outlets have refused to program it in the letterbox format, preferring instead the standard "scanned" version. The old ways die hard, it seems.

—Joe Dante
Burbank, CA

Wrong Lab

Thank you so much for the fine article regarding the production of *Earth Star Voyager* by Robert S. Birchard in your February 1988 issue.

I would like, however, to call your attention to an unfortunate error on page 57. The negative and dailies were developed and printed at Vancouver's Alpha Cine Service, not Seattle's Alpha Cine Laboratory.

—Crawford Hawkins
Vancouver, BC

Lights for Momma

Your article on *Throw Momma From The Train* in the February 1988 issue of American Cinematographer was interesting and well presented.

Although you mentioned the tunnel stunt sequence, no credit has been given to Unilux strobe lights which were used to achieve the tunnel effect. The Unilux lights were also used to highlight Momma while she was hanging from the train.

—Sanjeev Aneja
Hackensack, NJ

Shame, Where Is Thy Blush?

When I was approached by your reporter, Marc Schiller, about writing an

Congratulations to the Academy Award Nominees for Best Cinematography

MICHAEL BALLHAUS, A.S.C.

BROADCAST NEWS ✸

ALLEN DAVIAU, A.S.C.

EMPIRE OF THE SUN

PHILLIPPE ROUSSELOT

HOPE AND GLORY

VITTORIO STORARO, A.I.C.

THE LAST EMPEROR

HASKELL WEXLER, A.S.C.

MATEWAN ✸

✸ *Color by Du Art*

DuArt Film
DuArt Video

Du Art Film Labs · 245 West 55th Street · New York, NY 10019 · (212)757-4580 · Telex: 640 253 · FAX: (212)333-7647

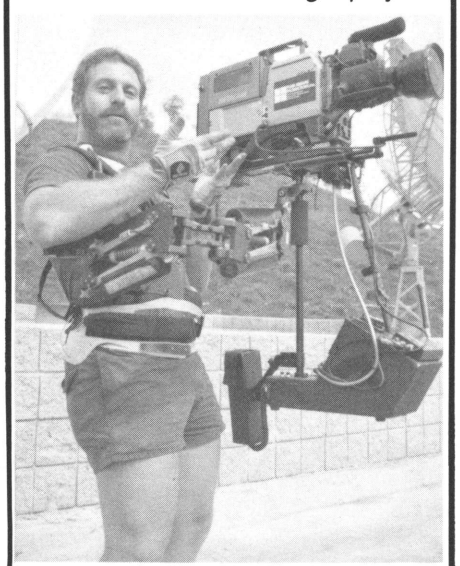
JIM MURO
STEADICAM
212-679-6936

FLYING TIGER
COMMUNICATIONS INC.
COLT LTD.
(212) 929-1156

MOTION PICTURE
AND VIDEO
SPECIALISTS

LOCATIONS • AERIALS • WESCAM
GYRO-STABILIZED VEHICLE MOUNT
• CONTINENTAL HELICOPTER MOUNTS
• STEADICAM

RUSTY GELLER
STEADICAM® Owner/Operator
Underwater Photography



805-498-8844
1324 Ramona Dr.
Newbury Park,
Calif. 91320

AARON PRO 1000
ULTIMATE BAG
EXTERIOR DIMENSIONS 13"W x 13"D x 25"L

5 YEAR
WARRANTY

$199.95

The AARON PRO 1000 is ideal for all large format applications. Features include removable inner case, 8" x 8" x 12" with 4 adjustable partitions for Lens Boards, Meters, Filters, etc. Available with 5 wheels attached for studio use, or without wheels for documentary use. Choice of 3 interiors, the "CASE IN A CASE" style (illustrated), "UNIVERSAL," dividers only, or "CATCHERS MITT" beanbag insert which conforms to the shape of equipment placed inside.

These bags are made of Ballistic Nylon, dense closed cell shock protection padding with high quality zippers, Velcro® fasteners, quick release plastic connectors on handles and main compartment, & adjustable 2" wide nylon carrying strap with 2 step sizing.

For Orders & Information, Contact Ron Herres
CALL NOW (800) 437-6667 in CA (800) 537-6667
Dealer Inquiries Invited
SATISFACTION GUARANTEED
15036 DELANO ST.
VAN NUYS, CA 91411
(818) 994-3510

aaron
MARKETING · ASSOCIATES

article concerning the cinematography of *Throw Momma from the Train,* I told him that I was reluctant, since often your articles are filled with obvious technical errors. Unfortunately, but not surprisingly, there are serious and stupid mistakes, which I would like to clear up.

One of the most serious errors is your report claiming that I asked the production designer to "build certain electrical *sockets* into the ceilings so that I could hang 4x4 bay lights. In order to hide the lights, *sockets* must be made to hang low." A director of photography doesn't ask a production designer to hang *sockets* for him. Doesn't an electrician do that? Could the DP, perhaps, be referring to *soffits,* which Webster's dictionary defines as "the horizontal underside of an eave."

Another weird statement attributed to me that I never made is that I like walls painted dark whenever possible "... to bounce light off the walls so that... your actors are what's most important in the frame." I prefer walls painted dark, so that the light hitting the actors is in part absorbed by the walls, but never do I bounce light *into the walls.* All that would do is make the walls *brighter* than the actors, exactly what I am trying to avoid.

I am quoted as saying that my sets are extremely bright, even for a night scene, and that I used a very small f-stop, usually f8. The reason my sets are so bright is because I use 5247, rated at EI 80 (interior) instead of using Kodak's horrible 5294, which is rated at EI 400. I doubt we ever had an f2.8 the entire time we shot on the set of Danny's house.

—Barry Sonnenfeld
Amagansett, NY

Things to Come...

Fifty seven years ago the famed classic horror, *Dracula,* came to the talking screen. Photographed by Karl Freund, ASC, and directed by Tod Browning, this film refuses to die. The movie world has never been the same since this picture launched a tradition of supernatural drama with dialogue. In our May issue we talk about it in great detail.

"AGFA XT320® COLOR NEGATIVE; IT'S A FILM STOCK FOR SHOOTING EVERYTHING!"

Photo By Ed C. Thompson

WILLIAM WAGES Director of Photography
"LINCOLN" NBC Four-hour Miniseries
Produced by Chris/Rose Productions in association with Finnegan/Pinchuk.

"I didn't come to use AGFA XT on a whim. It was only after conducting side by side tests of all the available stocks that I made my choice. To put it bluntly, there was no contest; XT320 outperformed them all! Agfa was far superior in accurate color rendition, finer grain, overexposure latitude, and…most important to me, it had the richest blacks.

At 4 stops over or under, AGFA XT has considerably more detail than any of the other films I tested. Don't take my word for it, try it yourself.

Since most of my work is for television, I frequently use negative transfer to tape. This is a true 'acid test' for any film stock because the slightest imperfection becomes almost 'electric' and a serious problem. XT320 again outperforms the rest. In this system I do not use my pan glass because the film will reproduce virtually what my eyes see. There is no guess work; if you see it, so does the film.

In a 12 month period I shot numerous commercials, 2 movies of the week, a miniseries, a pilot and 1 feature…all on AGFA XT; it was the perfect stock for all these shows. AGFA XT320 color negative; it's a film stock for shooting everything!"

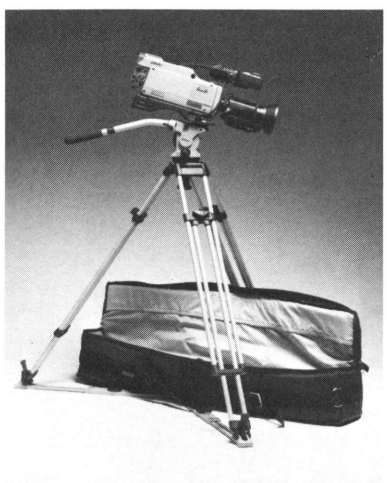
AGFA-GEVAERT, INC. – Motion Picture Products Division
NJ (201) 440-2500 or NY (212) 971-0260
CA (213) 552-9622 or (415) 589-0700

AGFA and XT are registered trademarks of AGFA-GEVAERT, Antwerp/Leverkusen.

They reflect the best of you: AGFA XT125® & XT320® COLOR NEGATIVE FILMS.

AGFA Agfa

The New on View at NAB in April



A new and complete television mounting equipment package containing a pan and tilt head, tripod with spreader and soft carrying case ideally suited for use with CCD cameras will be introduced by Vinten Equipment, Inc., of Hauppauge, NY, at the 1988 National Association of Broadcasters convention in Las Vegas. The new Vinten Vision 5 is the company's latest addition to the Vision range of lightweight camera mounting equipment specifically designed by the company for ENG/EFP activity.

The package is comprised of the new 3325-3 Vision 5 fluid pan and tilt head for cameras weighing between 8 pounds and 18 pounds, the Vinten 3311-3 single-stage tripod with lightweight calibrated spreader and soft foam-filled carrying case. The complete system weighs 14.5 lbs.

The new Vision 5 head offers 160° of tilt and has a fully calibrated drag adjustment which permits on-shot changes. The precision-engineered head incorporates a large top platform for greater camera stability, and provides the exceptional balance for which both Vinten lightweight and broadcast-quality heads have been recognized for over 35 years.

The Vision 3311-3 tripod, which has a height range of 25" to 57.5," features a 100mm bowl top and incorporates half-turn locking levers for rapid set-up. Constructed of anodized tubular alloy, thermoplastic mouldings and die castings, the tripod can support up to 45 pounds.

For more information: Vinten Equipment, Inc., 275-C Marcus Boulevard, Hauppauge, NY 11788. (516) 273-9750.

Broadcast Products

Among the products to be on display at NAB are the latest video cassette decks in the Betacam-SP series. The BVW-60 deck, a playback only machine, can be used as an edit source and as an on-air playback machine. The BVW-65, also a play-only deck, incorporates the added dimension of the Dynamic Tracking® feature. It can provide slow motion and still frames. The BVW-70, a player/recorder without the Dynamic Tracking feature, is designed to become the workhorse deck for applications such as news programming and editing with motion control memory.

The most recently introduced Sony CCD camera designed to handle Electronic Field Production and Electronic News Gathering is the BVP-50. The hallmarks of the camera are the elimination of vertical smear and the incorporation of an electronic shutter and a greater signal-to-noise ratio.

A plug-in module to provide advanced audio noise reduction capability for the BVH-3000 one-inch VTR series will be on display. Dubbed the BKH-3080, the unit offers either Dolby™ A or Dolby™ SR (Spectral Recording), the latest introduction in noise reduction for professional recording applications.

Enhanced Betacart systems include the BVW-95 Betacam SP deck which provides heightened picture quality and wider audio options while remaining compatible with previous Betacart models.

The BVP-350 portable production camera is being enhanced with the addition of remote control and convenient interface with other cameras through the introduction of the portable CCU-350 camera control unit. The CCU-350 provides full remote EFP control of the new BVP-50 CCD camera.

The Broadcast video monitor line is enhanced with the BVM-1910, a 19-inch monitor which utilizes new developments in super High Resolution CRT design, advanced automatic setup and video circuit design.

Also on display will be the BVU-950, the broadcast-quality U-matic® recorder/player/editor featuring SP technology and an optional plug-in time base corrector.

Products to be shown for professional video include the VO-7600 and VO-7630, the second series in the Type VII U-matic® line. The player/recorder units offer all the capabilities of their state-of-the-art predecessors, VO-5600 and VO-5630, with improved picture quality and computer interface capability.

A 13-inch monitor, the PVM-1390, is the latest introduction in the display products category. Highlights include high resolution of 450 TV lines and S video connector. Both analog and Digital RGB can be accepted.

Another introduction in the projector line is the latest Multiscan projector, the VPH-1031Q. In addition to multiscan capability, the VPH-1031Q incorporates a new dual hybrid lens and CRT which result in precise picture reproduction, bright image display and projection versatility. The compact size and user-friendly design simplify installation and operation.

For more information: Sony Corp., One Sony Drive, Park Ridge, NJ 07656.

Zoom Lens

Canon U.S.A., Inc. has added a 50-200mm f/3.5-4.5 zoom lens with macro mechanism to its EF line, designed exclusively for Canon's EOS series of auto-focus SLR cameras.

The new lens offers high performance in a compact size, measuring only

ARRIFLEX CONGRATULATES THE NOMINEES FOR THE 2ND ANNUAL AWARDS FOR

OUTSTANDING ACHIEVEMENT IN CINEMATOGRAPHY, 1987

MOTION PICTURE OF THEATRICAL LENGTH

Stephen H. Burum, ASC	The Untouchables
Allen Daviau, ASC	Empire of the Sun
Steven Poster, ASC	Someone To Watch Over Me
Vittorio Storaro, AIC	The Last Emperor
Haskell Wexler, ASC	Matewan

SINGLE EPISODE OF A TV SERIES

Gerald P. Finnerman, ASC	Moonlighting, "Blonde on Blonde"
John McPherson, ASC	Amazing Stories, "Go to the Head of the Class"
Woody Omens, ASC	Heart of the City, the pilot
Richard L. Rawlings, ASC	Scarecrow & Mrs. King, "Unfinished Business"
Reynaldo Villalobos	L.A. Law, the pilot

TV MINI-SERIES OR SPECIAL

James Crabe, ASC	When the Bough Breaks
Victor Kemper, ASC	Kojak: the Price of Justice
Philip Lathrop, ASC	Christmas Snow
Jack Priestley, ASC	Rage of Angels: Part III
Gayne Rescher, ASC	Promise

© 1988 ARRIFLEX CORPORATION

© 1988 AMERICAN SOCIETY OF CINEMATOGRAPHERS

"SCHOOL DAZE"
Camera Equipment
Furnished by:

THE
CAMERA
DEPARTMENT

SERVICE spoken here...

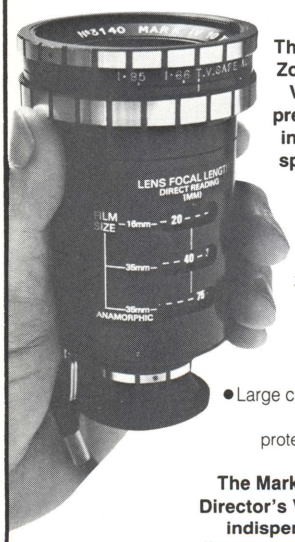
- 35mm Camera Rentals
  - Arriflex BL4 and 35-3 • Zeiss Superspeeds
  - Angenieux HP • Cooke • CEI
  - Jurgen • Tiffen • Harrison & Harrison
  - Mitchell • Sachtler • Worrall
- 16' Iveco Camera Truck
  - Nitrogen equipped • loading room
  - heated/air-conditioned
- 50' x 70' Drive-In Sound Stage
  - 750 amps, clear • loading dock
  - complete kitchen • Production office
  - dressing rooms
- Certified repairs by our factory trained technicians

The Camera Department, Inc.
2135-N DeFoor Hills Road
Atlanta, GA 30318

Call Walter or David
24 hrs. a day, 7 days a week
at (404) 355-6999

LOOK!

A DIRECT READING VIEWFINDER
FOR DIRECTORS AND CAMERAMEN.



The Mark IV 10:1 Zoom Director's Viewfinder is a precision optical instrument with special features that include:

- Optical quality coated glass
- Fluid precise zoom movement
- Focusing eyepiece adjustable to your vision
- Large collapsible rubber eyecup that protects your glasses

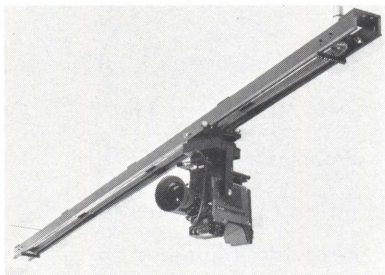
The Mark IV 10:1 Zoom Director's Viewfinder, an indispensable tool for directors and cameramen.

ALAN GORDON ENTERPRISES, INC.
1430 CAHUENGA BLVD., HOLLYWOOD, CA 90078
TEL: (213) 466-3561 - TWX: 910-321-4526
FAX: (213) 871-2193

5¾ inches (146.4mm) long. The built-in full-range macro mechanism provides a close focusing distance of 3.9 feet (1.2m). Normal close functioning distance is 4.9 feet (1.5m).

Lens construction consists of 16 elements in 13 groups. The zoom system is a three-component, four-group system. Like all of Canon's EF lenses, the 50-200mm has two built-in motors: an AF drive motor and a diaphragm motor. By making the motors an integral part of the lenses and by tailoring the motors to each lens, EOS AF is faster and quieter than other AF systems. AF operation in the 50-200mm is by Canon's arc form drive (AFD) motor.

For more information: Canon, USA, One Canon Plaza, Lake Success, NY 11042.



Linear Trolley Mount

Telemetrics Inc. has introduced its Model 68060 Camera Trolley Assembly, an overhead-mounted camera motor-driven under remote control along a track.

The camera is securely locked into a broadcast-quality remotely-controlled pan/tilt mount. Lens zoom and focus are also remotely-controlled through the same feed cable. No modifications are necessary on standard portable cameras.

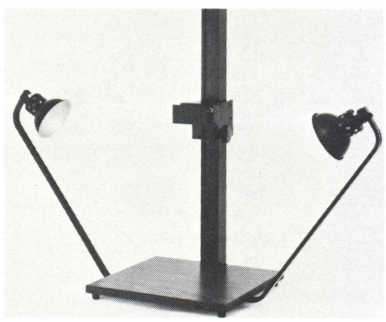
Standard trolley-track lengths are 5 feet, 10 feet or multiples of 5 feet. Other lengths are optional.

A separate remote free-standing unit affects the controls at distances of (up to) 1,000 feet through standard Belden cable. Through this remote-control unit the camera mount can be moved in either direction along the trolley-track at speeds of (up to) one foot per second.

Joysticks control lens focus and zoom, as well as a continuously-variable (up to) 60 degrees pan movement (at 20 degrees per second), and (up to) 90 degrees tilt movement (at 40 degrees per second). All moves and functions, up to 16, can be preset and repeated exactly as often as required. The entire system mechanism is DC-powered through the remote-control unit. Input is from 115v/50–60hz AC lines.

The assembly can be retrofitted by the manufacturer, Telemetrics, Inc., or by purchaser's technical personnel in broadcast, cablecast and other video production studios or locations.

For more information call (201) 423-0347 or write to Telemetrics Inc., 7 Valley Street, Hawthorne, New Jersey 07506 U.S.A.



Camera Stand

The new Bencher copymate camera stand – designed for roll film and lightweight cameras is a low cost fully featured table top copystand system for smaller cameras built to industrial standards.

Copymate is a scaled down model of the famous Bencher M2, stand, the standard of the industry, retaining many of the features that made the M2 famous. Copymate features a custom extruded aluminum 36" fluted column finished in professional black for flare free performance. Lighting options include quartz illumination for 3200°K type "B" films, or incandescent photo floods for monochrome.

A wide variety of accessories is available for Copymate, including a camera quick release, a precision leveling plate, polarizers, a fine focusing device, a copy hold-down, camera reflection shields and more.

For more information: Bencher Inc., 333 W. Lake St., Chicago, IL 60606. (312) 263-1808.

A World of Difference

Not all lighting filter companies are the same

Lee Filters manufacture their own products. That is why you can rely on their quality. They are also the only company to make resin and polyester camera filters. For consistency, for product range, for global distribution, for state of the art technology, ask for Lee.

As you can see our range of filters cover the world.

United States
Lee Colortran Inc.
West Coast: 1015 Chestnut Street, Burbank, CA91506
Tel: 818/843–1200, Fax: 818/954–8520
East Coast: 23 East 22nd Street, New York, NY 10010
Tel: 212/995–9100, Fax: 212/995–9289

United Kingdom
Lee Colortran Ltd.
Old Wellington Road, Eccles, Manchester, England.

Lee Colortran Ltd.
Ladbroke Hall, Barlby Road, London, W10 5HH, England.

France
Mole Richardson (France), 38 Avenue Henri Barbusse, 92220 Bagneux, France.

Germany
Lee Colortran International GMBH, Hans-Urmiller-Ring 17, 8190 Wolfratshausen, Germany.

Spain
Mole Richardson (H.H) SA, Gustavo Fernandez, Balbuena 11, 28002 Madrid, Spain

Hong Kong
Lee Colortran Hong Kong Ltd., 2nd Floor, Union Industrial Building, 48, Wong Chuk Hang Road, Hong Kong.

New Zealand
Lee Colortran International (NZ) Ltd, 4, Taylors Road, Morningside, Mt. Albert, Auckland, New Zealand.

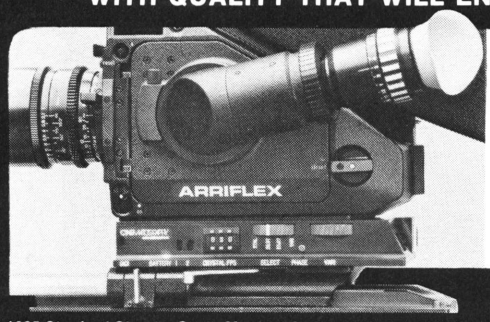
LEE FILTERS

LEE Colortran International®

Lee Filters Ltd. Central Way, Walworth Ind. Estate, Andover, Hampshire SP10 5AN, England.
Tel: (0264) 66245, Telex: 477259. Andover, Fax: (0264) 55058

CRYSTAL HIGH SPEED CONTROL

WITH QUALITY THAT WILL ENHANCE YOUR ARRI-3



- 132 CRYSTAL SPEEDS
- 1 fps — 130 fps
- 29.97 & 23.976 fps
- PHASE SHIFTING BUTTON
- PRESETABLE SPEEDS
- 2 BATTERY MONITORS
- LED TACH
- LED METERS/FEET
- 2 ACCESSORY CONNECTORS
- MACHINED ALUMINUM
- REPLACES RISER BLOCK
- SMOOTH SPEED RAMP

1625 Stanford Street • Santa Monica, California 90404 • USA
Phone (213) 829-1811

CINEMATOGRAPHY electronics

THE CINE 60 BATTERY BELT

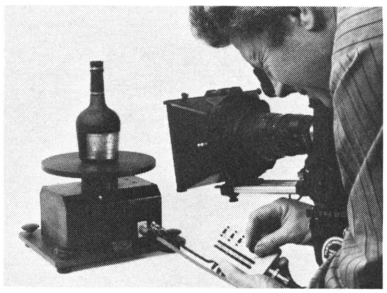
Powerfully Reliable

Twenty-five years ago, Cine 60 became the first name in portable battery power by inventing the Battery Belt. And we haven't stopped since. We've used new ideas, new materials, and new technology to make it more versatile, more rugged, and more comfortable. We developed the lightest, most efficient, most powerful built-in charger in the business. And found a way to combine high charging speed with maximum protection. Then we refined and developed our designs into the broadest selection of Battery Belts for Cameras, Vtrs, TV Monitors, Lights, and Sun-Guns. All with Cine 60's legendary ruggedness and reliability. Now, in our 26th year, proven reliability and proven life still is why more professionals use Cine 60 Battery Belts than any other. Powerfully reliable. Why trust your power to anything less?

See Us At NAB Booth 2712

CINE 60

EAST COAST: FILM CENTER BUILDING/630 NINTH AVE . NEW YORK, NY 10036/TEL: (212) 586-8782
WEST COAST: 1050 CAHUENGA BLVD., HOLLYWOOD, CA 90038/TEL: (213) 461-3046



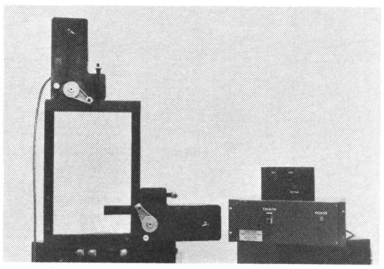
Rotating Podium

Band Pro Film/Video, is proud to distribute Rune Ericson's new Revpod. Ideal for table top and miniature work, and special product photography, this convenient device provides numerous functions previously only available in costly custom systems.

The Revpod rotating podium is fully programmable with slow start/stop function, variable speed, and preset start/stop. All functions are accessed by a convenient hand-held remote control. The Revpod may also be used as a remote-controlled pan head.

Revpod is powered by 12V DC. The compact unit comes complete in a sturdy case and weighs under 35lbs (10 kg).

For more information: Band Pro Film/Video, 425 North Moss Street, Burbank, CA 91502. Phone: (818) 841-9655.



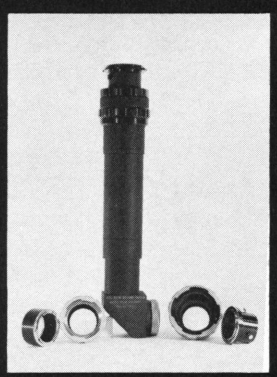
Color Analyzer Takeup

Elicon has designed a film transport system for use on color analyzers. Working in conjunction with Duart Film Laboratories of New York, Elicon has developed a method of controlling the movement of film through the slide projector attached to most color analyzers. The operator can slew the film forward of reverse to a selected frame by means of a joystick. The system has tension sensors to apply a controlled tension to the film at all times. The use of this system has greatly improved the speed of timing scenes. It has also decreased the labor cost of cutting scene samples by allowing complete 2,000 foot

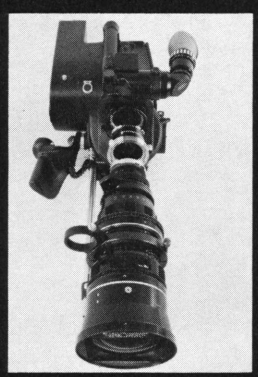
THE PROFESSIONAL'S CHOICE

LENSES & ACCESSORIES

- OPTEX EXTENDERS
- PL MOUNT ADAPTERS
- CENTURY PERISCOPE
- WIDE ANGLE ADAPTERS
- " MOUNT VIDEO LENSES
- ILM & VIDEO MATTE BOX
- OFORCE ZOOM MOTORS & CONTROLS
- CP J6 ZOOM CONTROLS



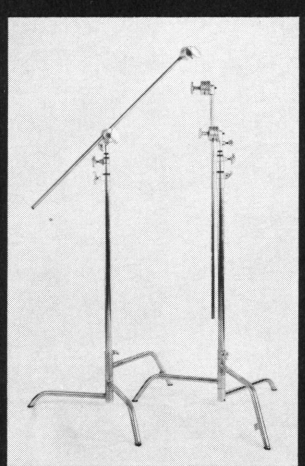
V35 PERISCOPE WITH ADAPTERS



PL MOUNT 2X EXTENDER

GRIP

- REFLECTORS
- SCRIMS & FLAGS
- LIGHT STANDS
- BUTTERFLIES
- VACU-GRIP CAR MOUNT
- DOORWAY DOLLY
- ELEMACK CRICKET DOLLY



"C" STANDS

MOTORS & CONTROLS

- NORRIS SINGLE FRAME CONTROLS
- CINEMATOGRAPHY ELECTRONICS SPEED CONTROLS
- BOLEX MOTORS

NORRIS SINGLE FRAME MOTORS

FILTERS

- TIFFEN
- HARRISON & HARRISON
- CUSTOMIZED ADAPTER RINGS
- KODAK WRATTEN GELS
- LEE LIGHTING GELS

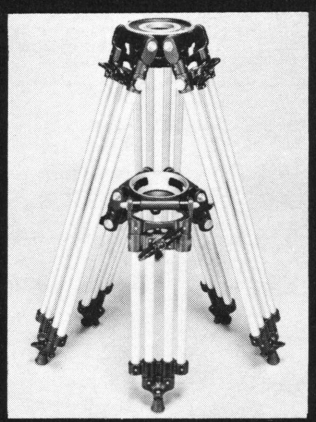
TIFFEN FILTERS

TRIPODS

- RONFORD/BAKER
- LISAND
- O'CONNOR
- BOGEN
- BIRNS & SAWYER

ACCESSORIES

- HI-HATS
- TILT PLATE
- TRIPOD CASES



HEAVY-DUTY TALL TRIPOD WITH MITCHELL TOP, AND HEAVY-DUTY SHORT TRIPOD WITH 150MM BOWL TOP

LIGHTING

- LOWEL LIGHTS
- LTM
- ARRILITES
- MINI-COOL
- COLORTRAN
- FLEXFILL

LOWEL LIGHTING KIT

DIRECTOR'S FINDERS

- MODEL IIIB
- 16/35 COMBIFINDER
- MARK IV

DIRECTOR'S FINDERS

SPECTRA & MINOLTA METERS ■ LARGE LIBRARY OF PROFESSIONAL BOOKS ■ COMPLETE EXPENDABLE DEPARTMENT ■ DITTY & GRIP BAGS ■ DEPTH OF FIELD CALCULATORS ■ ANTI MIST EYEPIECES ■ EYEPIECE LEVELING BRACKETS ■ 12V ON-CAMERA WORK LIGHTS ■ CUSTOMIZED HI AMP BATTERIES ■ LARGE SELECTION OF USED CAMERAS & LENSES

WRITE FOR OUR NEW SALES CATALOG

BIRNS & SAWYER, INC.

1026 N. Highland Ave., Hollywood, CA 90038 213-466-8211
FAX 213-466-7049 TELEX 673280 Cable BIRNSAW

Special Makeup Effects
Greg Cannom — 818/764-1424
LOST BOYS
COCOON
FRIGHT NIGHT II
WEREWOLF □ THE HOWLING
NIGHTMARE ON ELM ST. III;
"Dream Warriors"
SWORD AND THE SORCERER □ VAMP
BACK TO SCHOOL
CHERRY 2000
RADIOACTIVE DREAMS
DREAMSCAPE
AMAZING STORIES
"Mummy, Daddy"
"Fine Tuning"

New Mexico.
Behind the scenes.

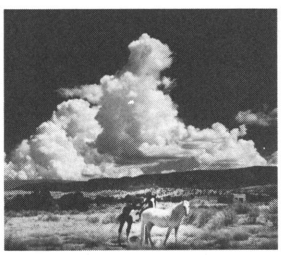
Take a peek. You'll find The New Mexico Film Commission hard at work — coordinating any shoot in the state.

We deliver New Mexico from the first take to the final wrap: Experienced film and video personnel plus an excellent talent pool. Expert assistance and logistical support, statewide.

An unmatched spirit of cooperation.

Breathtaking locations.

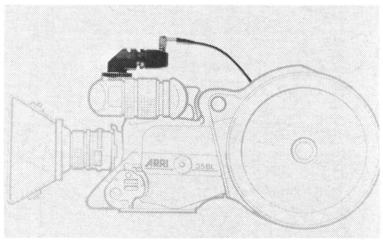
Call The New Mexico Film Commission at 1-800-545-9871, toll free. We work behind the scenes, so you don't have to.



NEW MEXICO
FILM COMMISSION

reels to be scanned quickly and easily.

For more information: Elicon, 940 S. Leslie St., La Habra, CA 90631. (714) 870-6647.



Video Control System

The latest development in camera techniques is sensationally small and amazingly light: The video control system VCS C for color video outcoupling with Arriflex III film cameras or the various models of the Arriflex 35 BL series.

The complete system comprises an optical unit to be mounted onto the Arriflex viewfinder in question and the color video camera which is interchangeable, equipped with a chip and thus has only 1/4 the size compared to previous b/w outcoupling devices.

On the VCS C, video outcoupling takes place directly from the viewfinder light path of the film camera via a beam divider with 20% light outcoupling for the color video camera. This ideal solution was only made possible by developing an extremely high-quality high-speed lens with a light-collecting power of 1:1.75.

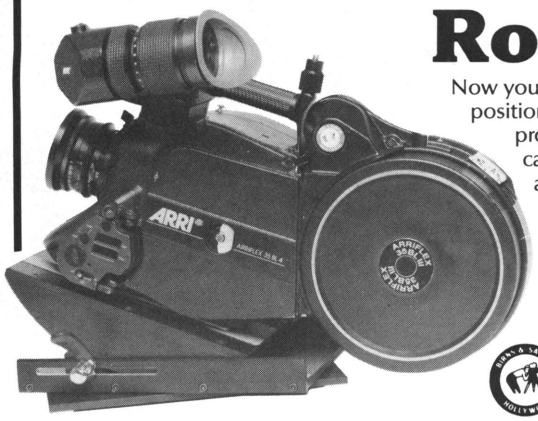
The video camera has a horizontal resolution of 420 lines and also features a push-button controlled automatic white balance function from artificial light (3200K) to daylight (5600K) and a booster amplifier with auto, 6dB and 12dB settings. The power supply for the camera unit has a 12V DC input and a rated power consumption of 4W. Needless to say, the camera also has a video output for a color monitor video recorder. The VCS C is available for PAL and NTSC.

For further information: Präzisions-Entwicklung Denz, Josephsburgstr. 83, 8000 Munchen 80, West-Germany, Tel. 089/ 431 60 47.

Paint, Animation

To be introduced at 1988 NAB will be a new ArtStar® 4:2:2 digital paint and animation system. The system will be a complement to the existing, popular ArtStar

CSC
MOVIECAM
SUPER
AMERICA
CSC
CAMERA SERVICE CENTER
625 West 54th Street, New York, NY 10019
FAX: 212-713-0075 Tel: 212-757-0906
MOVIECAM
SUPERAMERICA
PUSH DISK AND TURN TO TAKE UP
PUSH DISK AND TURN TO TAKE UP
MOVIECAM
VIEWFINDER
MOVIECAM
SHUTTER MONO
50 40 30 20 10 0 10 20 30 40 50
© 1987 Camera Service Center, Inc.



Rocker Plate

Now you can pan and tilt in an extreme low angle position. A delrim bearing in high viscous grease provides a smooth, dampened pan. The tilt can either rock freely or lock at any desired angle within its range. Easily supports fully loaded 35mm camera system.

PRICE $775.00

CA res. add 6.5% sales tax. For UPS shipping in the continental U.S. add $7.50

BIRNS & SAWYER, INC.

1026 N. Highland Ave., Hollywood, CA 90038 213-466-8211
Cable BIRNSAW TELEX 673280 FAX 213-466-7049

For Your Consideration . . .

"BEST PICTURE"

"BEST DIRECTOR"

"BEST CINEMATOGRAPHY"

"BEST ART DIRECTION"

"BEST MAKE-UP"

24-Hour Service in a 24-Hour State

NEVADA

IN A SUPPORTING ROLE

Nevada Motion Picture and Television Division AFC

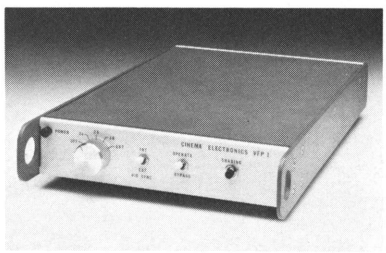
Bob Hirsch, Director
McCarran International Airport
Las Vegas, Nevada 89158
8:00 a.m.-5:00 p.m.: (702) 486-7150
After hours: (702) 791-0839
Carson City office now open for Northern Nevada and rural county service. Call Robin Holabird (702) 885-4325

3D Plus and will offer compatibility with that device via Ethernet. The new ArtStar system will be one of the first high-end broadcast graphics systems to offer 4:2:2 digital capability that can be converted to either NTSC or PAL.

Also on display will be the Live-Line 5 weather graphics presentation system. Introduced at the 1987 NAB, this year's exhibit will demonstrate the system's animation and paint capabilities for on-air weather presentations, as well as new features and enhancements.

Weather Central, a leader in providing weather graphics and forecasting on a subscription basis, will be demonstrating a new receive-only sequence and display system.

For more information: Color-Graphic Systems, Madison, Wisconsin.



Flicker Processor

Cinema Electronics introduces the new video flicker processor which eliminates all 'flicker' normally associated with video assist.

Due to the nature of the video assist image (derived from the rotating mirror of a reflex film camera), annoying flicker has until now been an inherent attribute of conventional video assist. Recognizing this problem, Cinema Electronics devised a proprietary ultra high-resolution frame store system which actually wipes out all flicker. The resulting image replicates what the film camera views, including subtleties of expression and nuances of lighting – never before viewed by conventional video assist.

Cinema Electronics' Video Flicker Processor is fully compatible with all popular video assists. The Video Flicker Processor is available for rental from leading rental houses, including: Panavision, Clairmont Camera, Camera Service Center, Victor Duncan Inc., Samuelson ALGA Cinema, and Video & Film Co. of London.

For more information: P.O. Box 120, Hermosa Beach, CA 90254. Phone: 1-800-678-4335. △

There Are No Missing Pieces

When You Rent From Cine Video

We Focus on Dependability, So You Can Focus on Other Things

Renting the equipment you need—all complete and ready to roll—does not have to be a major production.

At Cine Video, our service department brings every order into sharp detail. They're knowlegeable, helpful and prompt.

And our equipment is second to none: State-of-the-art 35MM and 16MM cameras. Video cameras. HMI and tungsten lighting. Grip equipment. Trucks. Stages.

Everything at excellent rates.

So for your next movie, commercial or music video, rely on Cine Video. Wide-angle choice of equipment... Close-up attention to detail...

The best rental source from any point of view.

CINE VIDEO
MOTION PICTURE EQUIPMENT CORPORATION

EQUIPMENT RENTALS AND SALES • STAGE RENTALS

948 N. Cahuenga Blvd. • Hollywood, CA 90038 • (213) 464-6200

The Bookshelf

by George L. George

Bruce Petri's perceptive study, **A Theory of American Film,** probes George Stevens' career from his beginnings as cameraman and gag writer for Hal Roach to director of such highly praised classics as *Shane* and *Giant.* The book discusses in detail the story line of each film, its social implications, the cast's performance and the director's contribution. In a lengthy interview with Petri, Stevens provides discerning insights into his craft. (*Garland, NYC $65*).

An informative and entertaining study, **Hollywood Goes to War** looks at the politics, profits and propaganda that affected WWII and post-war movies. Authors Clayton K. Koppes and Gregory D. Black did considerable research as they tracked Washington pressure meant to coordinate film story lines with government views. (*Free Press/Macmillan, NYC, $22.50*).

An attractive reference volume edited by James Park, **Film Yearbook** (Vol. 6), a British publication, examines in an engagingly worldly manner US and UK film production. Included are credits and synopses, notable film flops, new faces on the screen, book reviews, assessments of cinema trends and other pertinent data. (*St. Martin's, NYC, $15.95*).

Peter Cowie's **International Film Guide 1988** covers in its 25th anniversary edition a quarter century of production in 61 countries. With his customary thoroughness and reliability, Cowie surveys leading directors and outstanding films, as well as animation, festivals, awards, publications, schools and related activities. (*NY Zoetrope, NYC, $14.95*).

The 38th edition of John Willis's comprehensive pictorial and statistical record of domestic and foreign films released in the US during 1986, **Screen World 1987,** accumulates some 10,000 entries and 1,000 stills in a detailed and entertaining overview of movies, personalities and other noteworthy aspects of cinema. (*Crown, NYC, $29.95*).

The use of computers for animation graphics has brought a new visual dynamism to television commercials and shows, and has enriched spectacularly the panoply of film special effects. The full scope of this development is explored by Cynthia Goodman in **Digital Visions,** a stimulating book whose lucid text and superb illustration define the achievements of this creative process and its potential. (*Abrams, NYC, $29.95/19.95*).

A well-researched reference work, **Television Westerns** compiles close to 150 shows aired between 1946 and 1978. From *Gunsmoke* and *Laramie* to *Bonanza* and *Davy Crockett,* Richard West evaluates the genre's permanence and appeal, as well as its career in network programming and syndication. The book includes casts, Emmy awards and ratings winners, and provides abundant data on this particular type of popular entertainment. (*McFarland, Box 611, Jefferson, NC, $19.95*).

Contrary to general belief, "prime time television has not been the most hospitable breeding ground for classic situation comedy," Vince Waldron asserts in **Classic Sitcoms,** his knowledgeable and engrossing survey. *All in the Family, The Dick Van Dyke Show, I Love Lucy* and *The Honeymooners* were all at first rejected by the networks that financed them. The broadcasting history of ten among these series is vividly told, with a wealth of documented facts about production, ratings, awards, plus a complete guide to their episodes. (*Macmillan, NYC, $27.50/14.95*).

In **The Best Science Fiction TV,** John Javna stresses the international origin of these shows, with Japan and Great Britain significantly supplementing American product for a total of more than 100 programs since 1950. Javna's poll of critics, writers and fans finds *Star Trek, The Twilight Zone* and *Outer Limits* in the three top spots. His survey analyzes 15 best and the 10 worst shows, quoting critics' comments and offering a perspective on the genre's place in television's galaxy. (*Crown/Harmony, NYC, $8.95*).

One of the earliest type televi-

PANAVISION®

WORLDWIDE REPRESENTATIVES

AUSTRALIA
SYDNEY
SAMUELSON FILM SERVICE PTY. LTD.
61-2-439-6955

MELBOURNE
SAMUELSON FILM SERVICE PTY. LTD.
61-3-646-3044

CANADA
MONTREAL
PANAVISION (CANADA) LTD.
514-866-7262

TORONTO
PANAVISION (CANADA) LTD.
416-752-7670

VANCOUVER
PANAVISION (CANADA) LTD.
604-873-3901

CHINA
BEIJING
SALON FILMS (HONG KONG) LTD.
c/o CHINA FILM EQUIPMENT CO.
86-1-2013493

FRANCE
PARIS
SAMUELSON ALGA CINEMA
33-1-4-328-5830

GERMANY
MUNICH
FILM-GEREATE-VERLEIH
49-89-690-7070

HONG KONG
CAUSEWAY BAY
SALON FILMS (HONG KONG) LTD.
85-2-376-43123

ITALY
ROME
A.R.C.O. DUE
396-617-4844

JAPAN
TOKYO
SANWA-CINE EQUIPMENT
81-3-404-0366

MEXICO
MEXICO CITY
TRATAFILMS, S.A.
905-680-3500

PHILLIPPINES
MANILA
SALON FILMS (PHILLIPPINES) LTD.
63-2-881691

SCANDINAVIA
STOCKHOLM
FILM AB RUNE ERICSON
468-734-0845

SPAIN
MADRID
CAMARA RENT
341-733-4131

BARCELONA
CAMARA RENT
34-3-323-2491

THAILAND
BANGKOK
SALON FILMS (THAILAND) LTD.
66-2-252-8591

UNITED KINGDOM
LONDON
SAMUELSON FILM SERVICE (LONDON) LTD.
44-1-452-8090

UNITED STATES
CALIFORNIA
TARZANA, LOS ANGELES
PANAVISION, INC.
818-881-1702

HOLLYWOOD
GENERAL CAMERA WEST
213-464-3800

SAN FRANCISCO
CINE RENT WEST/STAGE A
415-864-4644

FLORIDA
MIAMI
CINE VIDEO TECH
305-754-2611

GEORGIA
ATLANTA
VICTOR DUNCAN, INC.
404-355-3001

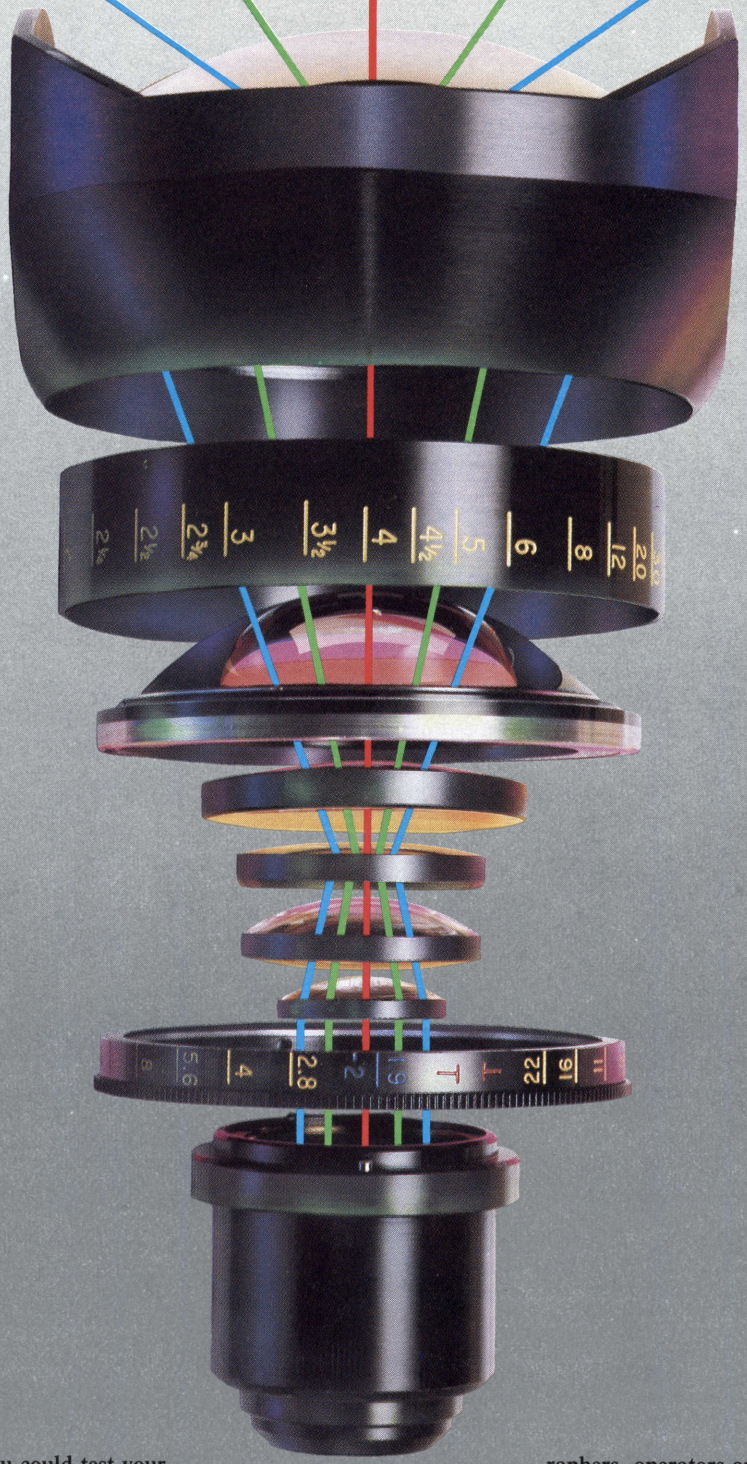
ILLINOIS
CHICAGO
VICTOR DUNCAN, INC.
312-943-7300

MICHIGAN
DETROIT
VICTOR DUNCAN, INC.
313-471-1600

NEW YORK
NEW YORK CITY
GENERAL CAMERA
212-594-8700

TEXAS
DALLAS
VICTOR DUNCAN, INC.
214-869-0200

CHALLENGE



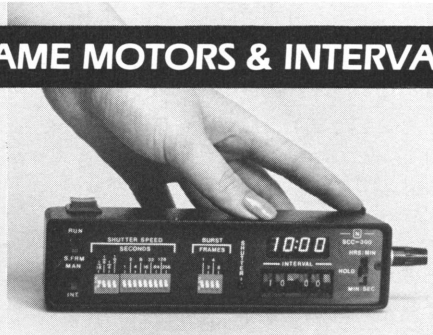
What if there were a place where you could test your ses and filters before you shot with them? A place ere MTF computers, solid-state spectrophotometers, optical benches stood ready for you to explore modern ical design and separate fact from fiction. What if this ce were a million dollar R&D lab created specifically the design and testing of motion picture lenses? Velcome to Panalab. Panavision invites cinematographers, operators and assistants to come in and test the lenses and filters of their choice. Because we are both manufacturer and rental company, we offer a challenge no other can match. Come in and compare, just so you can see the difference. Our goal is to customize our optics to your creative tastes on some of the finest, specially designed instruments in the world. Want to develop your unique look? Panalab is ready and waiting...at your service.

PANAVISION®

18618 Oxnard Street, Tarzana, California 91356 • Telephone: (818) 881-1702 • Telex: 651497, PANVISION TZNA • Fax: (818) 342-8166

SINGLE FRAME MOTORS & INTERVALOMETERS

- 12 to 24 VDC power.
- Crystal controlled multiple shutter speeds — 1/16 sec. to over 8 min. time exposure (8,194 possible).
- Intervals from 1 fps to 60 hrs.
- Burst feature 1 to 15 frames per pulse.
- LED frame counter.
- Foreward/Reverse operations.



SINGLE FRAME SYSTEMS FOR: Arri 16S & M • Arri 16SR • Arri 35IIC • Arri 35III • Bolex REX 4 & 5 • Mitchell 16mm • Mitchell S35R, MK II • Mitchell 35 High Speed • Mitchell BNC
ACCESSORIES: 3" & 5" Capping Shutter • AC Power Control Unit • Strobe Triggering Device

NORRIS FILM PRODUCTS

1014 Green Lane • La Canada, California 91011 • (818) 790-1907 • FAX (818) 790-1920

Producers: looking for business?

As the world's largest distributor of sponsored video and film programs, Modern believes there's unlimited potential for NEW sponsored production.

We should know. We distribute more than 4,000 titles for 500+ video and film sponsors.

We know which subjects are in demand, what potential audiences exist, and the cost involved to reach them. Everything a sponsor needs to know. Everything *you* need to know to sell new sponsored productions.

Send for our FREE producer support kit for more details.

Modern
The Sponsored Communications Company
Modern Talking Picture Service Inc., A KDI Company

New York	Chicago	Washington, D.C.	San Francisco
(212) 838-6877	(312) 337-3252	(202) 293-1222	(415) 777-3995

I am interested in being added to your mailing lists to receive:
( ) Modern's free Producer Support Kit.
( ) Production Opportunities Newsletter.
( ) Modern Memos Newsletter (on sponsored communications).
My organization has produced:
( ) videos/films. ( ) VNRs/PSAs.
Name _____
Title _____
Company _____
Address _____
Phone _____
Return to Modern, 5000 Park St. N., St. Petersburg, FL 33709.

sion programs, the TV game show, has shifted its emphasis from playing to viewing, according to David Schwartz, Steve Ryan and Fred Wostbrock, authors of **The Encyclopedia of TV Game Shows.** This substantial volume spans the history of that popular pastime, listing over 450 programs with an abundance of credits, descriptions, air dates, etc. *(NY Zoetrope, NYC, $39.95).*

An hilarious and perfectly aimed putdown of over 35 of TV's most outrageously trashy or artistically obnoxious shows is delivered by Kevin Allman in **TV Turkeys.** It points a selective finger at such single-season flops as *Supertrain* and *Amerika,* long-time hits like *Let's Make A Deal* and Steve Allen's embarrassingly pretentious brainchild, *Meeting of Minds.* You may even find your own favorite program in the book. *(Putnam/Perigee, NYC, $9.95).*

An unauthorized biography by Ronald L. Smith, **Johnny Carson,** published to coincide with the 25th anniversary of *The Tonight Show,* traces the life and career of the popular talk show host. It is an eminently readable compilation of facts and anecdotes, and an insightful portrait of the entertainer. *(St. Martin's, NYC, $17.95).*

Things to Come...

An intimate look into the lives of beavers is made possible by the inquiring camera of Jim Dutcher and associates. The documentary will be seen on the National Geographic's Explorer series this spring. The camera was stationed in an actual beaver den and the results are a record never before made of this reclusive rodent.

• • •

As the sun sinks slowly in the West and our ship pulls away from the shore, we say hello again to *"Fitzpatrick Traveltalks."* In the May issue we will publish the story of Kelly Fitzpatrick, son of James Fitzpatrick who is reprising his father's gig for Turner Television. He is once again making travel spots and re-visiting the places his father made famous in short subjects for the theaters of the 20s and 30s.

WE'VE GOT WHAT IT TAKES

For all your production needs in scenic Colorado, go with F/VESCO. You'll be delighted to find one of the finest film and video equipment rental services in the country, right here in Denver. Ready to go the distance in every possible way to make your shoot a complete success.

Plus

We've got all the hardware you need:

- ★ An extensive inventory of state-of-the-art professional 16mm/35mm and ENG/EFP equipment: cameras, lenses, recorders, power supplies, camera support (including Continental helicopter mounts and Steadicam), lighting and grip equipment (including HMI), and a full range of production accessories.
- ★ The latest Arriflex 35mm motion picture cameras, including BL-4.
- ★ The finest Cooke and Zeiss 35mm motion picture lenses outside of Hollywood.
- ★ A complete line of Mole-Richardson lighting and Matthews grip equipment.
- ★ Panther dolly with Super-Jib, as well as Chapman Hustler and PeeWee dollies.
- ★ Beta-format camcorders for quality ½" EFP.
- ★ A full range of production accessories for special applications, including the Century Periscope with various mounts for film and video camera lenses, and the Schwem Gyrozoom image stabilizer lens.

The newest professional 1/2" Beta edit suite in town: Beta-to-Beta and 1" interformat. So you can start editing right here, on location.

We also supply experienced crews, and customized, cost-effective rental packages, including our unique F/VESCO "dual-truck" remote production system, on a step-scale basis. Whatever your project — made-for-TV feature, low-budget documentary, sophisticated commercial, dramatic special, full-blown sports event or concert — we've got what it takes. Film and video.

So give us a call and check us out. Find out what we mean by "service," and why we are proud to make it part of our name!

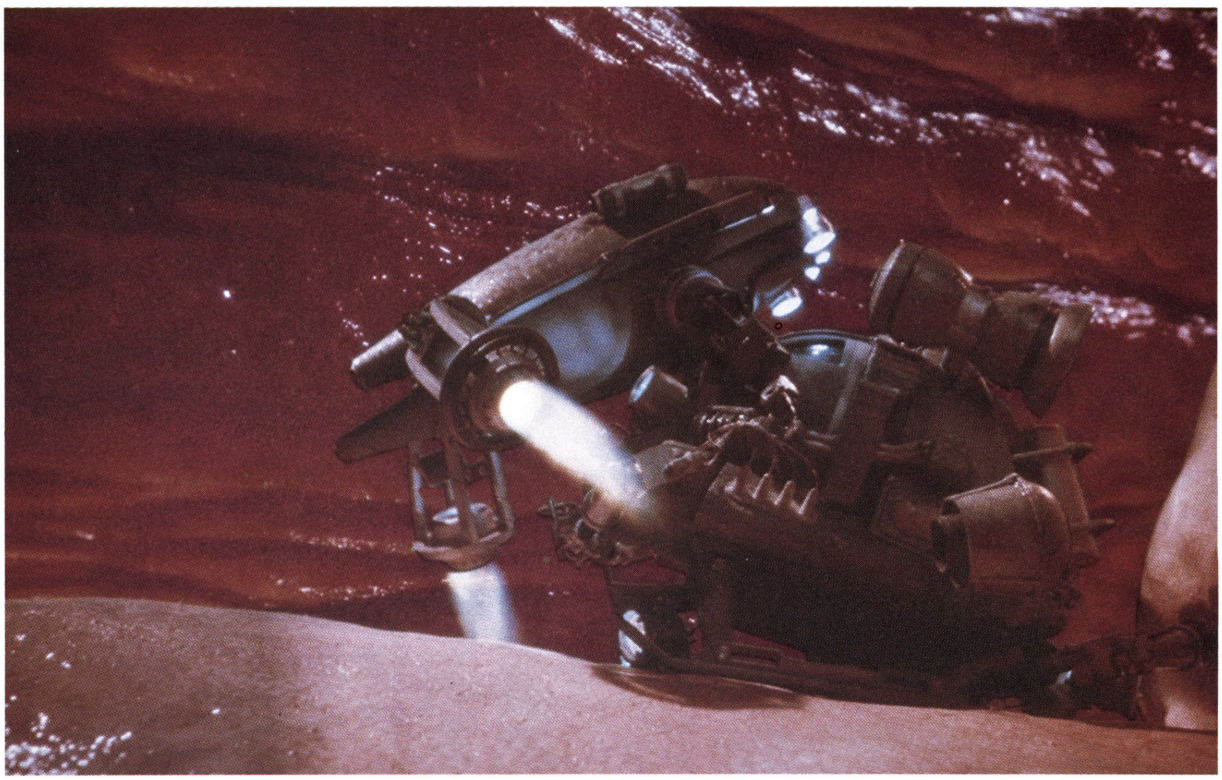
Rental • Sales • Service

Film/Video Equipment Service Co.

800 South Jason St. Denver, CO 80223 • (303) 778-8616

Two Candidates for Special Effects Awards

by Ron Magid



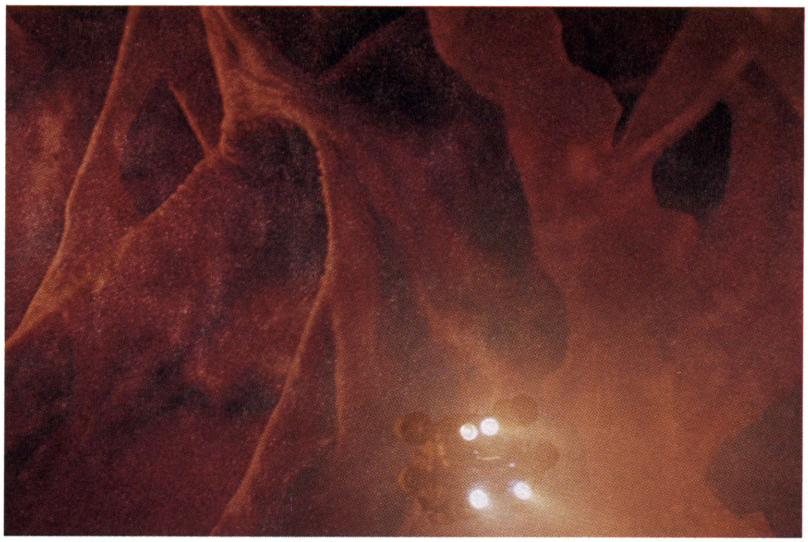
Innerspace, Journey Through Flesh & Blood

It stood to reason that Industrial Light and Magic, sooner or later, would tire of solar systems and planet-sized death machines and turn their attention to more terrestrial concerns. Yet, who could have anticipated that they would have turned their cameras inside a human body to capture the vastly miniature expanses of Joe Dante's comic film, *Innerspace*, a loose reworking of *Fantastic Voyage*? Nominated for an Academy award for their work on the effects for the film were Dennis Muren, William George, Harley Jessup and Kenneth Smith.

Effects supervisor Muren, at the helm of the unusual *Innerspace* project, felt that too many effects films become locked into post-*Star Wars* techniques when many older methods will serve. In this case, he wanted to be able to work with as many in-camera effects situations as possible in order to emulate Dante's spontaneous filmmaking style. When he developed the gigantically minute vistas of the human body and prepared to place a microscopic pod into that strange environment, Muren was determined to carry through with his live, improvisational approach. "It's harder to do with miniature sets and models," he admits, "and it made the shooting harder, but the look was much more organic and real. The main reason we did much of our effects live was to give them a feeling of spontaneous reality. My approach was to do as many shots as we could in-camera as practically finished shots, because I thought that style was more in keeping with a Joe Dante film. I wanted this stuff to look as if it was photographed by a miniature Dante actually in the body and reacting to everything he was seeing."

Creating a huge environment that also looked incredibly small was Muren's greatest challenge, and he employed concept artist Richard Vander Wende and art

director Harley Jessup to develop the contradictory style of the settings. "We worked for quite a while trying to figure out how we could make this stuff seem very small but vast," Muren recalls. "It needed to have an organic, tiny look, while from the traveler's point of view, things had to look as though they were huge distances apart. It was quite a task to get that look. We avoided having too many vertical and horizontal lines in our sets because there are very few such things in the human body. Consequently, everything looks skewed as much as possible, and to make it look completely organic we kept our set pieces in motion all the time."



Opposite page: ***Igoe and Tuck do battle on the edge of the precipice which overhangs the stomach acid. Left: Tuck's pod approaches entrance to the inner ear.***

Construction of the large scale miniature sets was supervised by Bill George and handled by the ILM model shop, who faced their largest miniature construction project since *Return Of The Jedi*. "The script specified a number of locations in the body where Tuck (Dennis Quaid) was supposed to go only once," Muren says. "That meant that elaborate sets had to be constructed for sequences consisting of from one to four shots, which meant we had a lot of models to make. The sets were made out of large pieces of foam rubber with bits of urethane here and there where we needed translucency for lighting. Some of the sets were built for use in a seven foot square underwater tank, since I wanted the body parts to always appear to be in motion."

One of the few areas where Muren and his crew were forced to take liberties was in the lighting of the miniature sets. "The body is really not that open," he explains, "so we were fighting the fact that it's very dark in there which means you can't see very far, and when you can, there's just another big slab of flesh colored stuff over there. We didn't want it to appear overly lit in there, which made it very difficult for my cameramen, John Fante, Pete Kozachik, Kim Marks and Don Dow, to come up with good looks. When we could, we took liberties with our lighting to make it more interesting. There were times when the pod was closer to the skin, so in that case we had a pinkish ambient light to punch things up. Too much pictorial design would have seemed too self-conscious and would have distracted from our story."

One of the most difficult sets to design was a layer of fat cells into which the miniature pod is accidentally injected, which compose the rear end of Martin Short's character. "We had a lot of trouble in the beginning figuring out what fat cells should look like," Muren admits. "We didn't want to go with something like a painting, which would seem too rigid, so we tried any number of substances but they all seemed too plastic or didn't move right or looked opaque. We finally solved the problem by making a weak mixture of jello inside balloons. When we punctured the balloon molds, all we had were these soft, spongy lumps of jello which nearly fell apart. We made dozens of those and layered them one on top of another. When we moved them, they all sort of undulated a bit and they had a pretty interesting translucency."

Finding a quick way for the pod to move swiftly through the vast area of Short's body was the next challenge, neatly solved by having the aquatic vehicle utilize the body's own rapid transit system: the bloodstream. "That meant that we had to come up with ways to get the pod into the bloodstream and we had to imagine what the bloodstream would look like from a miniaturized astronaut's point of view," Muren says. "Since we were sort of using it as a freeway, we called it the 'Artery Raceway.'"

Since Muren wanted to do as many of the Artery Raceway shots live as he could, a set had to be built that would allow for lengthy traveling moves with the pod as it went from one location to another. "The set was about 40 feet in length and eighteen inches in diameter," he says. "It was filled with running water and thousands of little red blood cells that we made from silicon, each the size of a silver dollar. The pipe curved around a large section of our stage floor, and we used a giant pump to move the water through it at a very fast clip. The entire thing was waterproof and its sides were built from plexiglass so we could light it from the outside. Within was a urethane sleeve constructed by Bill George and the model shop that had all the texture built into it, so that when we backlit it, it appeared frontlit.

"The urethane sleeve had a ziplock at the top so that it would stay sealed until our camera and pod rig passed through any given point – then it would unzip as the rods supporting the camera and the model from above went by, then zip back up again in their wake. The camera was in a waterproof container. It took cameraman Fante many takes to get everything coordinated properly: the blood cells racing along, the camera moving at

CINEQUIPT RENTS AND SELLS

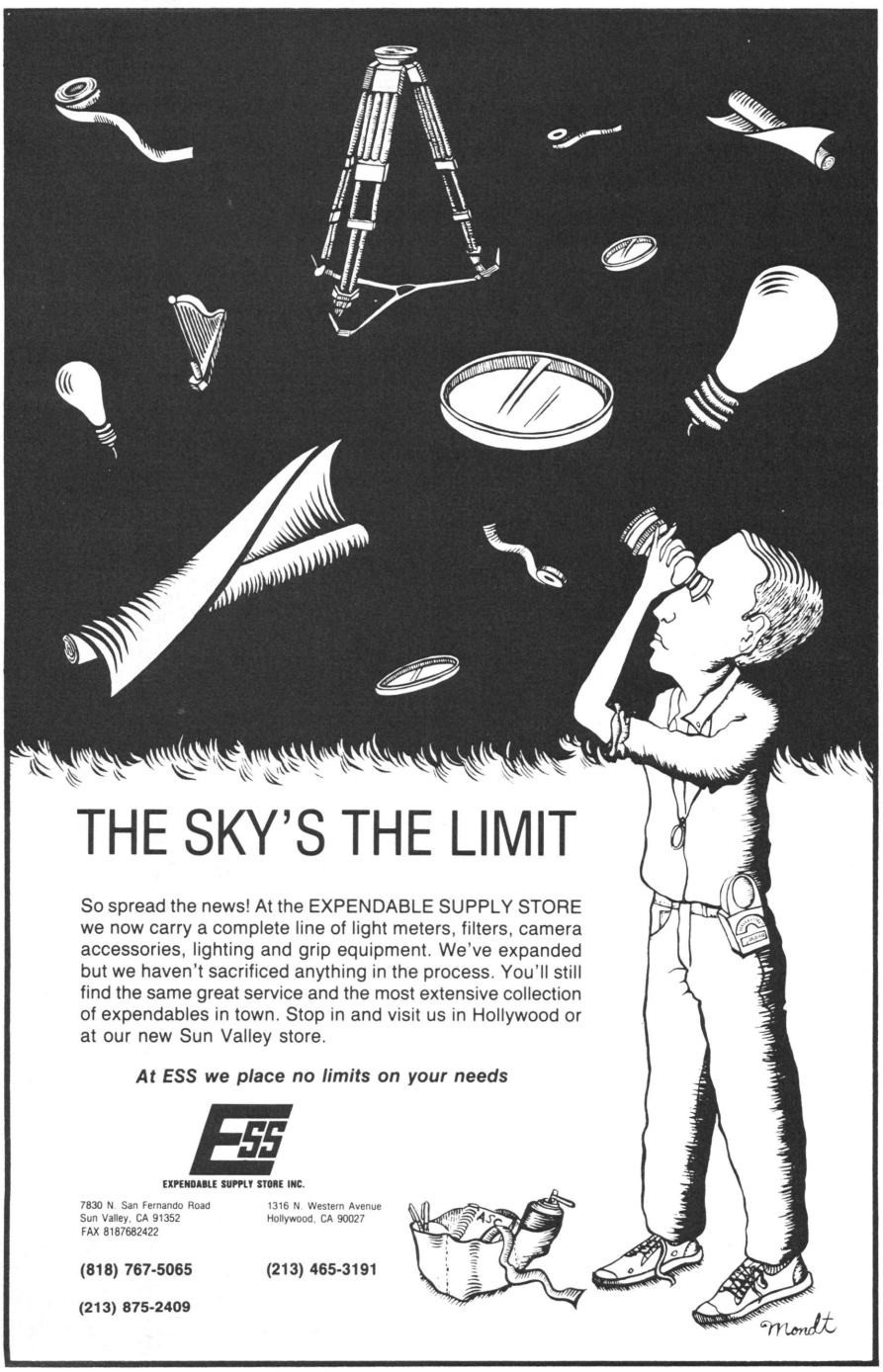
□ VIDEO □ 35mm □ 16mm

□ SOUND □ LIGHT

CINEQUIPT INC.

VIDEO & FILM EQUIPMENT
SALES AND RENTAL
(612) 646-1780

856 Raymond Avenue, St. Paul, Minnesota 55114


THE SKY'S THE LIMIT
So spread the news! At the EXPENDABLE SUPPLY STORE we now carry a complete line of light meters, filters, camera accessories, lighting and grip equipment. We've expanded but we haven't sacrificed anything in the process. You'll still find the same great service and the most extensive collection of expendables in town. Stop in and visit us in Hollywood or at our new Sun Valley store.
At ESS we place no limits on your needs
ESS
EXPENDABLE SUPPLY STORE INC.
7830 N. San Fernando Road
Sun Valley, CA 91352
FAX 8187682422
(818) 767-5065
(213) 875-2409
1316 N. Western Avenue
Hollywood, CA 90027
(213) 465-3191
Mondt

the right speed and the whole thing lit correctly. That was quite an operation."

For a suspenseful sequence in which Tuck's pod is almost sucked into the heart and destroyed, the set consisted of the Artery Raceway and a heart valve model about a foot in diameter that actually beat. "The beating of the valve was handled by a couple of stagehands directly operating it with rods," Muren recalls. "It was all rigged from behind and we experimented with three different designs before we got what we wanted. The shot was really complex – we wanted to get the right motion to the blood cells and the right beating action to the valve. We had to shoot it three times before we got everything working properly – the right lighting and the right modelwork. We added a blue screen pod element later because of the scale." Ken Smith was in charge of optical compositing.

Two different types of pods were made for the film: Tuck's pod, a round affair that looks like a cross between the spacepods of *2001* and the spaceship some kids constructed in Dante's previous film, *Explorers*, and the pod of the villainous Igoe, a sleek, sophisticated black casket. The differences are more than aesthetic: Igoe's pod, with thrusters placed at the bottom, is capable of flight, while Tuck's, with thrusters at the rear, is restricted to maneuvering in fluids.

The film's climax begins as a pitched battle in Martin Short's throat that ends up as a battle to the death over the pit of his stomach, a sequence requiring some of ILM's most elaborate effects. "We shot Igoe's pod against blue screen with motion controlled puppets for the entire sequence," Muren recalls. "We had a lot of spatial things to deal with because the throat is such a wide expanse compared to how tiny the pods are. Harry Walton and Don Dow programmed the shots, and we spent a lot of time working out the design of the sequence and exactly how the action should occur to keep things interesting. When Tuck's pod falls

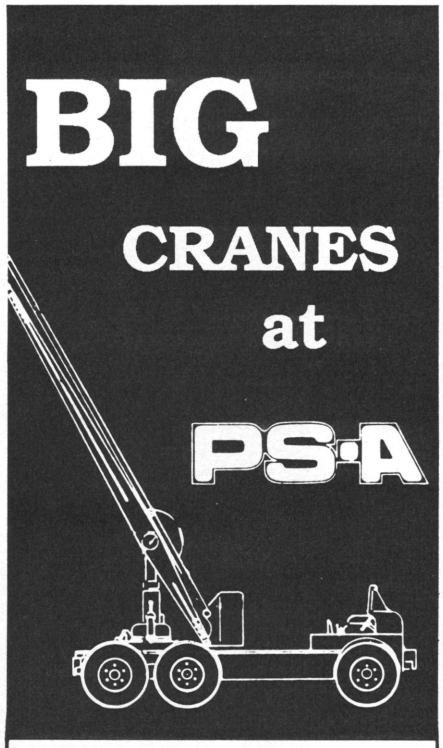
against the valve leading to the stomach acid pit, you can't really tell until the next shot that it's made up of this quicksand-like substance. Basically, the valve was a pretty simple model made of foam rubber, and about six of us pulled the stuff apart and pushed the pod through it."

Besides turning everything topsy-turvy inside Martin Short's body, ILM effects artists also wrought havoc in the film's "real world" when villains Kevin McCarthy and Fiona Lewis are miniaturized to half their normal size. In one outrageously funny sequence, we see normal-sized Short and his normal-sized compatriot, Meg Ryan, riding in the front seat of a Volvo while the half-sized villains cavort mischievously in the backseat. It's all done on one shot, and it's done *live.* "I've always been a fan of forced perspective," Muren smiles, "and I felt that here we had the perfect opportunity to use it. Basically, we built a double-sized front seat and lined it up with a double-sized backseat in perspective. Joe and producer Mike Finnell couldn't quite visualize it, so I built a couple of mockups to show them what the scale would be and I told them the advantages: it would be finished in the camera, we could shoot it four-perf, and, since the car was supposed to be racing up and down the streets of San Francisco, we could shake the camera to add realism. Well, they loved the idea. Their live action cinematographer, Andrew Laszlo, suggested putting the entire rig, which was about 12 feet wide by 25 feet long, on a gimbel so that all of our actors would react to the motion of the car in unison. Mike Woods and his crew built the car and the gimbel, and everything worked out great.

"The trouble with shooting forced perspective is that you've got to be really prepared because the producers can't afford much waiting on the set while things are tweaked. Knowing that we could really get burned if we weren't careful, I had everything built, set up, and roughly lit when the crew came in, so there was virtually no wait. I had never actually done anything quite like this on this scale with all the actors involved. In effects films today, everything tends to get done one step at a time, and it's all composited in optical. Using this technique, we had the whole sequence finished in less than a week.

Half-sized and double-sized puppet heads and limbs were made of each of the actors in the forced perspective car to really sell the sequence, so that the "real" Martin Short could be hassled from the back seat by a half-scale arm that was supposed to belong to miniaturized Kevin McCarthy. It worked vice-versa as well: When the "real" Kevin McCarthy tumbles into the front seat, an oversized set of acceleration and brake pedals and double-sized prop Martin Short legs convinced even the most skeptical that McCarthy was indeed half the man he used to be. To make two double-sized prop heads of Meg Ryan and Martin Short, creature shop supervisor Evan Strongquist experimented with a new method of replicating facial forms. "Life masks were taken of the actors' faces and the castings were laserscanned using a system designed specifically for making miniature busts of people. Once the features have been scanned, that information can be used to fun a mill to make heads of any size. We were able to make perfect miniatures and perfect double scale likenesses of our actors, and then our sculptors did some work on the busts to open up the eyes and add skin detail."

Despite the many unusual approaches Muren employed in almost all of the 120 effects shots in *Innerspace,* he feels that design comes first and technique second in making successful illusions: "What hopefully makes one shot work better than another is the design. If you've made the right decisions and used the right techniques, then the stuff can look real. If you don't, then it doesn't. We spent a lot of time on our designs for *Innerspace* and we used a lot of unusual techniques, both old and new, and I think that combination has given audiences something they've enjoyed seeing." △



WORLD'S LARGEST
CHAPMAN DEALER
Titans
Mercury
Zeus
Nike
Electra
Olympians
Python Arm
Jib Arms
Tulip Cranes
Cam-Remote
Sky-Mote
PS·A
Production Services — Atlanta
EQUIPMENT RENTAL
SALES & SERVICE
(404) 622-1311
2000 Lakewood Way, Bldg 4
Atlanta, Georgia 30315

Frame blow-ups show the Predator running towards camera.

Visible but Unseen Monster for *Predator*

Bringing a movie monster to convincing screen-life these days is a big job, often requiring the talents of numerous artists besides the obligatory makeup effects crew. In the case of *Predator,* last year's monstrous monster flick that pitted Arnold Schwarzenegger's beefcake against the brawn of a bounty hunter who was not of this earth, it took the combined talents of visual effects supervisor Joel Hynek, makeup artist Stan Winston and optical effects house R/Greenberg and Associates to fully realize the complex organism who essayed the title role.

Stan Winston, whose superlative work on *Aliens* netted him a 1987 special effects Oscar, took an unusual approach to the extraterrestrial sportsman of *Predator.* Winston and his crew visualized the Predator as a physically formidable presence, a gigantic adversary who also had sophisticated weaponry on his side. Making a suit to fit 7'2" actor Kevin Peter Hall was probably still more monster than Winston or his crew had bargained for, but they forged ahead, creating an imposing creature whose head is covered with Rastafarian dreadlocks and whose face consists mostly of huge pincer-like mandibles which are suggestive of a spider's mouth. "The creature is very cultural-looking," says effects technician Shane Mahan. "It's a mix between a Spartan and an African warrior. It has a very unusual look."

While the monster's expressions were radio controlled, the fighting spurs located within a groove inside the Predator's arms were spring loaded and manually released when its arms were flipped down, becoming fighting blade extensions on both appendages. The blades could also retract back into place.

As the talented optical effects people at R/Greenberg and Associates were to soon discover, making a monster you can see is a lot easier than making one you're not supposed to see. One of the Predator's greatest weapons is its ability to blend invisibly with its surroundings, and producer Joel Silver, director John McTiernan, effects supervisor Hynek and R/Greenberg's Eugene Mamut all worked together to develop the "camouflage effect," which they determined should look like a warp in the background similar to that created by a Fresnel lens. By incorporating contour lines similar to age rings on a tree's cross-section, the Predator could both appear invisible yet be perceived by audiences as a distortion of the background he appears to be moving through.

Greenberg's Elicon Motion Control Remote System was used on location in Mexico to create the background footage necessary to distort and composite for the

camouflage effect. This was done by first having actor Hall don a red spandex version of the Predator suit, which was photographed in the jungle exterior. Next, the same take was repeated without the actor in the frame, recording only the background. Finally, a third take using a 30% wider lens was made, in order to create the desired Fresnel lens-type distortion. When these three negatives were combined optically, they revealed a vague outline of the creature moving through the greenery as the background bent around its shape. When it stopped, it vanished completely.

"The camouflage effect was somewhat forgiving, but we were afraid of the slow motion situations where the movement got very small..."

The purpose of the red monster suit was to enable Hynek to pull a set of mattes from its silhouette using a process similar to bluescreen. Although red is acknowledged to be the worst color from which to pull separations for traveling mattes (due to its low gamma on color negative), the suit had to be a brilliant scarlet because it was the farthest spectral color opposite from the predominant green of the jungle and the blue of the sky. Once the mattes were successfully pulled, Hynek divided the creature's silhouette into anywhere from eight to fifteen concentric rings. Making the concentric mattes required at least ten steps to finally obtain an automatically aligning set. The optical department generated 8 to 15 clear core silhouetted inlines (the opposite of an outline) from the black core matte. The first concentric ring followed the body's outer edge. The next was the same distance away as the first, only smaller. This continued until the rings became a dot at the center of the creature's body.

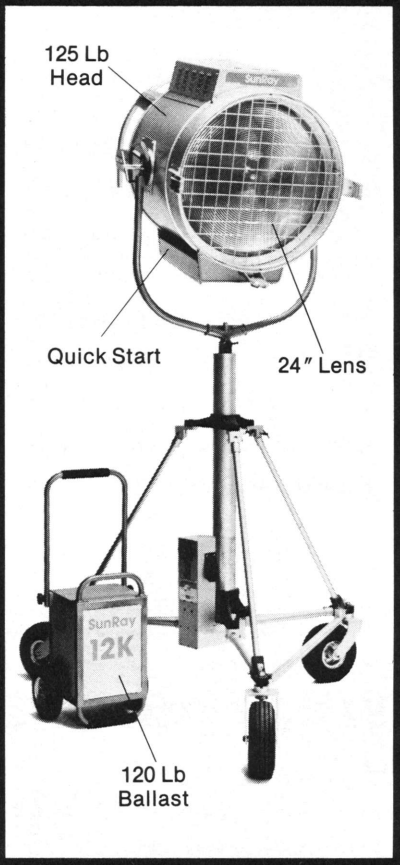
Each of the concentric clear core mattes required a background of a different size. The ring closest to the inside of the body was almost one-to-one, and moving to the outermost edge, the background reduced further and further. The effect resembled a television camera pointed at a video monitor, wherein one sees a series of monitors getting smaller and smaller to infinity.

Hardest of all was to make the camouflage effect work while the camera was panning. The production resumed shooting in Palenque after an eight month hiatus. This time, to save on expenses, the studio opted not to use Greenberg's motion control system. Fortunately, Hynek's crew managed to work out a way to track the system manually using a group of television monitors. The first move with the red monster suit was recorded on videotape with time code numbers generated onscreen. The operator then moved the camera on a dolly or gear head, recording the empty background plate, matching his new move to the old one by watching them both on side by side video monitors. What they ended up with was two video images, each with time code. Using the roto-positioning ability of the Academy Award winning Compu-Quad printer (a four head optical printer computerized on 17 axes), Mamut was able to take the red suit pass and the wide plate pass and match them frame by frame. At least three takes were necessary to align one shot to the other.

"This is something that I don't think has ever been done before," Hynek said, "but it seemed like the only way to make it work. The camouflage effect was somewhat forgiving, but we were afraid of slow motion situations where the movement got very small. It's very easy for the eye to pick up discrepancies, but we were quite happy with the results."

The most complex effect shot in the film is one in which Schwarzenegger is in the foreground standing against a tree while the cloaked, invisible Preda-

SunRay
12K HMI
FOR PROFESSIONAL
MOTION PICTURE LIGHTING



- Demonstrated at SMPTE, Los Angeles
- Thousands of hours of field operations
- Owned and operated by rental houses, gaffers and production companies
- Competitively priced
- Lease finance programs available
- The Lightest Ballast — 120 Lb
- Featuring "Quick Start"

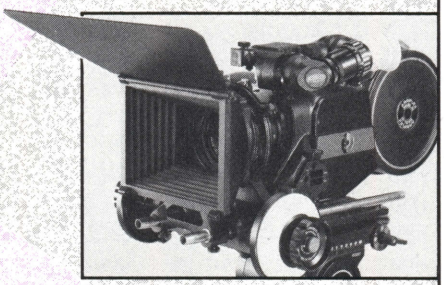
For more information
ask for Alan at (213) 469-2987

ULTRACAM

5609 SUNSET BLVD.
HOLLYWOOD, CA 90028

Film/Video Mattebox Systems. Tools for Creative Imagery.

Alfred Chrosziel Film/Video 3x3 and 4x4 bellows mattebox and follow focus systems from Band Pro Film/Video. With 360° rotating filter holder compartment, french flag, and much more. Designed with your creativity in mind.



DISTRIBUTED BY

band

PRO FILM/VIDEO INC.

425 N. Moss Street, Burbank, CA 91502 Tel: (818) 841-9655 Fax: (818) 841-7649

What you put on a light stand is your business.

Bogen offers a complete range of professional light stands, booms and accessories which combine outstanding quality and versatility.

For more information, see your dealer or write: Bogen Photo Corp., 17-20 Willow St. P.O. Box 12, Fair Lawn, NJ 07410-0712.

bogen

Keeping it there is ours.

tor crawls down head first behind him as the camera pans and dollies on several axes at the same time. The crew tried filming Schwarzenegger and the Predator together but encountered depth of field problems – either Schwarzenegger's head or the monster was out of focus. The solution: sharp focus passes were shot of each of them separately, then another plate was shot of the empty background, the camera move duplicated in each shot so they could match via roto-positioning. Back in New York, the optical crew cut a roto-matte around Schwarzenegger's head where it passed in front of the Predator. The concentric mattes were then pulled off the red monster suit in the usual fashion. The wider background plate was aligned to match the take with Schwarzenegger to complete the effect.

Once the creature's camouflage effect was firmly established, R/Greenberg's next task was to design all of its point of view shots. The Predator utilizes a heat-sensing device that reads heat patterns off objects in its path, reproducing them in color on a screen. Originally, infrared stock was to be used to create the effect on location, but the crew soon discovered that no film can see the wavelengths people emit in a jungle, where the external temperature is so close to that of our bodies. The film couldn't differentiate between the two. Infrared film also wasn't sharp enough to pull mattes from, and, to further complicate matters, it was very difficult to obtain large amounts of the stock.

Fortunately for all concerned, a company called Inframetrics makes thermal scanners for video that give excellent heat images of people and objects. Thermal vision effects supervisor Stuart Robertson constructed a thermal video-film camera configuration consisting of a Model 600 Inframetrics Thermal Scanner at right angles to a normal 35mm motion picture camera. The two were tied together on the same optical axis by

Catch the Sun with LITEGEL...

A COMPLETE SYSTEM OF LIGHT CONTROL WITH LITEGEL.

"I've used all the leading Gels that have been manufactured and I was overwhelmed with the Colors and Brilliance of LITEGELS.

Presently shooting:
"Beekman's Place"
(for NBC)

EMMY AWARD
Columbo - Movie of the Week

EMMY NOMINATIONS
Columbo
Griffin & Pheonix -
Movie of the Week

T.V. MOVIES
Blood Sport
Bud & Lou
Louis Armstrong
Savage Bees
The President's Plane is Missing
Return to Mayberry

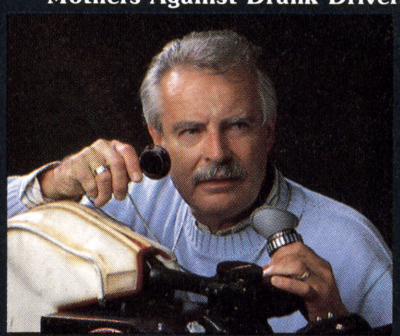
FEATURES
The Man With Bogart's Face
The GumBall Rally
Payday
Charlie Chan
Hot Child in the City

SERIES
V------
Wizard and Warriors
Vegas
Night Gallery

MINI SERIES
The Act of Peter & Paul in Greece

SPECIAL
Mothers Against Drunk Drivers

- Brilliant Colors
- Large Selection
- Tough Polyester
- High Heat Resistance
- Low Cost
- Free Swatch Book
- Color Correction
- Special Effects



RICHARD GLOUNER, A.S.C.
Director of Photography

When you use LITEGELS the world looks beautiful.

LITES INC.

7022 Sunset Blvd.
Hollywood, CA 90028
(213) 463-8866
Dealerships Available

Lites, Midwest: 525 Court Str., Pekin, Il 61554 (309) 346-5559
Lites, Canada: P.O. Box 593, Anjou, P.Q. H1K4G9 CANADA (514) 354-6784

WE'LL

SURVEY IT,

DESIGN IT, SUPPLY IT,

TRUCK IT, GRIP IT, GRID IT,

ROLL IT, LIFT IT, MOUNT IT, LIGHT IT,

POWER IT, FILTER IT, SHAPE IT,

FOCUS IT, CONTROL IT,

ANY DAY OR NIGHT.

Our light shines day or night

•

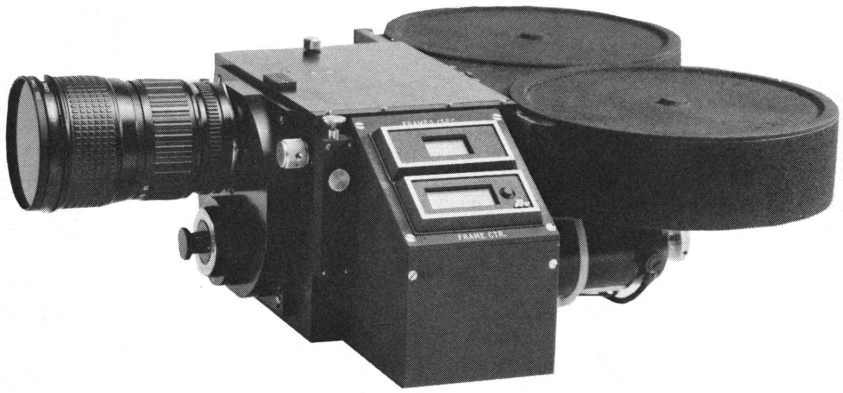
Lighting Design
Service
Rentals
Sales

•

24 hour service

R&R LIGHTING CO., INC.

(301) 589-4997
813 Silver Spring Avenue, Silver Spring, Maryland 20910



Vista-Fx-207

VISTA-VISION FORMAT • LIGHT-WEIGHT CAMERA

- Vista-Vision format 8-perf pulldown
- Light weight (12 pounds)
- High speed
- Dual pin register
- Variable shutter
- Multi-pass capabilities
- Frame counter
- Tachometer
- Wild motor/stepper motor hook-up
- Canon or Nikon mounts
- Reliability/30 years of production

FLIGHT RESEARCH, in cooperation with GENE YOUNG/EFFECTS, is offering the Vista-Fx-207 camera. For additional information, please send self-addressed stamped envelope to:

Gene Young/Effects
517 West Windsor, Glendale, CA 91204
or call (818) 243-8593

a 70/30 beamsplitter arrangement, which sent 70% of the reflected image to the heat camera and 30% to the 35mm camera.

Because the Thermal Scanner utilizes video technology, the 35mm camera had to overcrank at 30 frames per second. The thermal image was transmitted to an air-conditioned truck, where another 35mm camera re-photographed it from a video monitor. A Panavision field-to-frame synchronizer tied both cameras together.

The heat image was in black and white. Whatever was hottest appears brightest in the shot. The Inframetrics decoder broke the image down into gray levels and assigned a color to each of these levels. A simple palette was selected so that audiences could easily relate to the heat-sensing characteristic. The digital encoder could also average the heat image over 2, 4 or 16 frames, which created an interesting "heat wave" look, so that when a hand was moved quickly before the lens, it left a simulated heat trail. Weapons firing and explosions going off created dazzling effects.

Because both cameras were tied together, Eric Chamberlain and Ted Churchill were able to mount them on a Steadicam rig. Though the cameras added a lot of extra weight, they were able to devise a method of mounting the cameras that didn't throw the rig too far off balance. Several shots were made by first camera assistant Rob Agganis, who chased Schwarzenegger through the jungle with the heat camera configuration mounted atop the Steadicam while infrared camera operators Pete Sekelick and Frank Bryson followed, adjusting a little box of encoders and scanning equipment as hundreds of feet of power cables trailed behind. △

MOTION CONTROL PHOTOGRAPHY

MODELS/MINIATURES

ADVANCED BLUESCREEN TECHNIQUES

MECHANICAL EFX

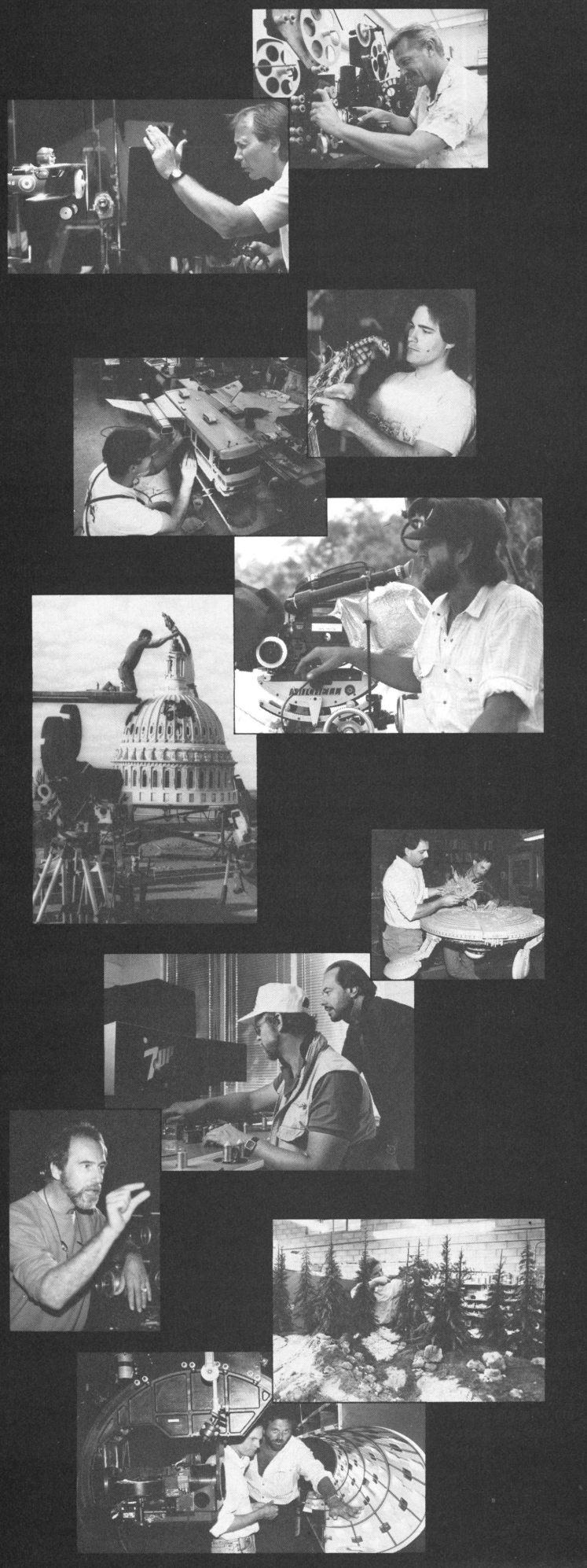
ANIMATION

LASER EFX

PROSTHETICS

PYROTECHNICS

OPTICAL COMPOSITES



APOGEE

PRODUCTIONS

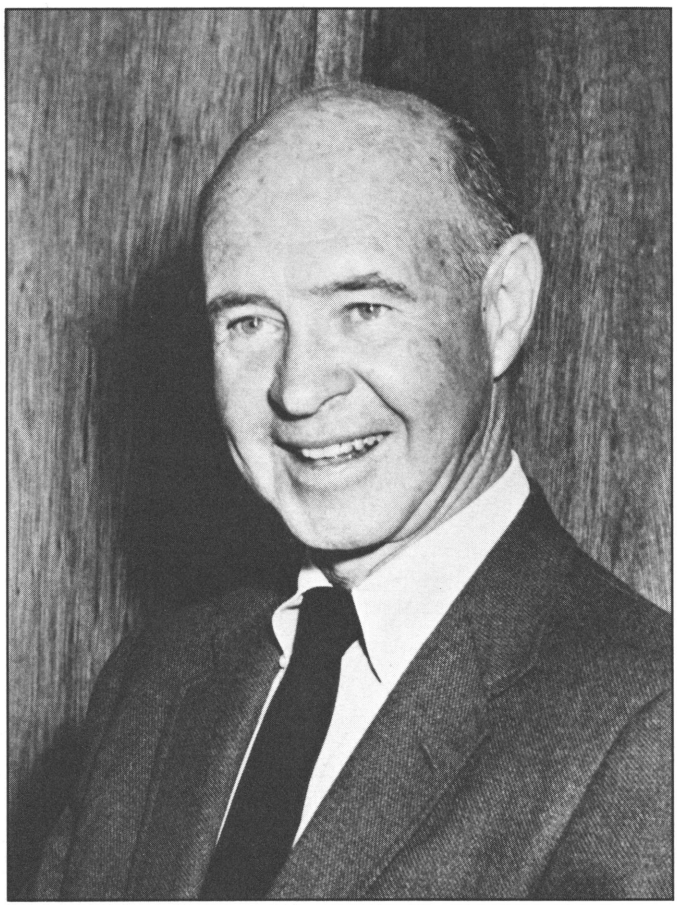
6842 VALJEAN AVE.

VAN NUYS, CA 91406

818.989.5757

FAX: 818.781.6671

Folsey Given First ASC Lifetime Achievement Award



George Folsey, ASC, is the recipient of the first Lifetime Achievement Award from the American Society of Cinematographers. The presentation was made March 6th at the Second Annual ASC Awards Banquet for Outstanding Achievement in Cinematography at Universal Studios' Alfred Hitchcock Theater.

"George Folsey deserves this recognition," said ASC president Harry L. Wolf. "His body of work speaks for itself. Nevertheless, this was a difficult decision for our selection committee because there are many other outstanding individuals who have also made significant contributions to the art of cinematography. His work was original. There are things that he did with lighting that are still being emulated today."

Folsey's motion picture career spanned 62 years, beginning in New York in 1914, when he went to work as a messenger for the Famous Players Studios. He was director of photography of some 160 feature films and received an astonishing 13 Oscar nominations. One of his rare ventures into TV won him an Emmy.

"During the period when Folsey was winning all of these nominations, Hollywood was producing 500 to 600 feature films a year," Wolf noted. "There were many other great cinematographers working during that time, so it was an extraordinary achievement."

A more comprehensive story of Folsey's career appeared in the July, 1985 issue of *American Cinematographer.* △

Reminisces About His Early Years in Film

by George Turner

"Those were fascinating, wonderful days for a young kid," said George J. Folsey, ASC, recently. "Certainly there was nothing mundane; every day was different."

One of the great pioneer cinematographers, the man who is being honored with the first Lifetime Achievement Award of the American Society of Cinematographers, Folsey was reminiscing about his early years in the industry in New York. He began work as an office boy at Famous Players Studios – forerunner of Paramount Pictures – in 1914, at the age of 14. He is one of the few men in the industry who can speak firsthand about the making of silent pictures at a major studio.

"There were a lot of early cameramen and I don't think anybody in our business now remembers them at all or knows their names," Folsey said. "We had people like Angio Martinelli, Al Ligouri, Ned Van Buren, Hal Young, Larry Williams, Emmett Williams, Lyman Broening, Eddie Gheller. These were all men I worked with day after day – watched them work and looked at the different ways that they worked. I found interesting things about them.

"When I was just a kid working at the studio, running errands, they would sometimes get one of the office boys and have him play a scene in a picture as a messenger boy or an elevator operator. I played scenes with Mary Pickford when I was 15 or 16 and I remember doing a scene with John Barrymore in *Incorrigible Dukane* and I was dressed as a messenger boy. I told him about this many years later when I made a picture with him."

One of the greatest moviemakers of the time was Edwin S. Porter, a partner in Famous Players, who had revolutionized the infant film industry when he made *The Great Train Robbery* in 1903. Folsey remembers him vividly:

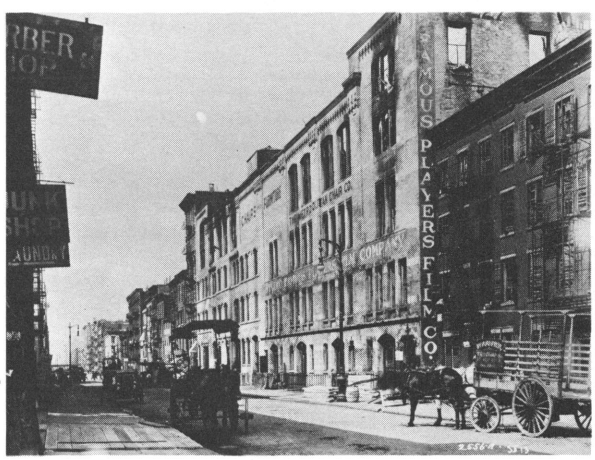
"Ed Porter was a very important man to the Famous Players Film Company because, technically, he was the only one who really knew how to do things – he was a cameraman and an editor and he knew how to develop the film – a very capable man. I got to know him and watch him work. In about 1916 at the 26th Street Studio – which is where Famous Players started – I stood on a stage and watched him shooting a picture and I noticed that there was something different: two big platforms about 12 or 15 feet high with two big banks of huge electric lightbulbs that were blue. I was too unschooled to understand what this was about, but the blue was necessary because the orthochromatic film was only sensitive to blue – it was one of the first times incandescent light was used in the studios. It was a supplemental light for the daylight, which came in through the glass roof.

"When I first saw him Porter was disturbed about his treatment at the studio," Folsey said. "He was disgruntled bacause new people had come in and they didn't know half as much as he did. He was in Adolph Zukor's office one time and just when I came in he was saying, 'I haven't any authority around here. I can't even fire an office boy!' Zukor said, 'Yes, you can!' I thought he was going to say, 'There's an office boy – fire him.' As a matter of fact, it was because of Porter that I became an assistant cameraman.

"Porter had no assistant. He was running the camera and loading the magazines, and he decided he'd have an assistant. He told his secretary to get him one, so she got her husband, Arthur Lane, who was a diamond salesman. They taught him how to load the magazines, which didn't interest him at all, and in about four days he quit. Then they made a fellow named Joe Goodrich his assistant. Emmett Williams and Lyman Broening were working there and they immediately wanted assistants. Williams asked me if I'd be his assistant and he showed me all the things to do. Then he went to California and Broening asked me to be his assistant.

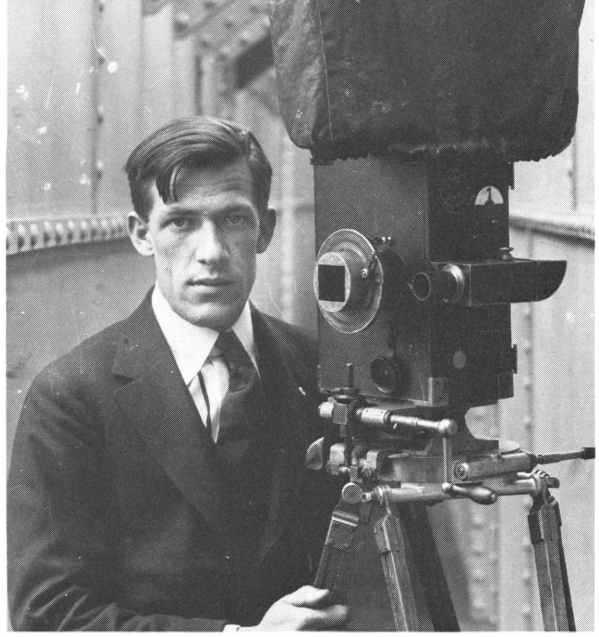
"That was the beginning of assistant cameramen. Before that there were no operators and no assistants. The cameramen did it all themselves: broke the camera down and loaded and unloaded the magazines – everything. And they didn't have grips. They did have good property men, who could do most anything.

"Lyman Broening was a nice man, and interesting," Folsey recalled. "He was here at the ASC shortly before he died and we were looking at some new cameras. He looked around and said, 'Not much like the ones we used to use, eh, George?' The only trouble was that he didn't want to let me go because I was a pretty good assistant. When they needed an



Courtesy of Robert S. Birchard Collection

The 26th Street Studio of Famous Players Film Company, the day after it was destroyed by fire.



Courtesy of Robert S. Birchard Collection

Top: ***Arthur Miller, ASC, Folsey's friend at Famous Players, with Pathé camera.*** **Below:** ***Marguerite Clark.***

extra camera they'd get someone else to come in and do it, and that made me angry. Eventually I got with Larry Williams, and the minute I did I was running a second camera. Larry was a fine man. I don't know how good a cameraman he was because I wasn't knowledgable enough to know the difference."

Folsey revealed that many aspects of production that now are standard procedure were undreamed of at the time he was an assistant. He said, for example, that "There was a time when no one at Famous Players saw any of the film until it opened at the Strand Theatre in New York! They'd run the negative, but the producers and executives couldn't interpret that, and they never made a print until the picture was released. Then they'd go and see what they'd spent all that money on!

"This business developed very slowly. For instance, they had no way of knowing where they were going to go on location. I would go away in the morning and never know when I was coming back. I'd usually get back about one in the morning. We would leave the 56th Street studio in New York at, say, 8 o'clock in the morning, with a series of cars. The only one who had any idea of where we were going and what we were looking for was the director, riding in the lead car. The rest of the cars had to follow. One morning we went out through Central Park and up 110th Street, and eventually we were on the Boston Post Road. We travelled all that day and we ran into a blinding rainstorm. We came to a place called Mohican Lakes, outside of Peekskill, New York, and stopped at a little inn. Then we went on and the director saw a farm and said, 'Stop here. This is where we're going to work.'

"We went back to Peekskill and made arrangements at the inn, then they sent me in a car back to New York with instructions to get crepe hair and makeup, black tape and paper, cans of film, still plates and all sorts of things. Next day I left the Great Northern Hotel in a seven-passenger auto with seven people, a dog, a pig, a bird in a birdcage, and all that equipment. The pig was in the bottom and he was chewing on everybody's feet, so I sat with my feet up. When we got to Peekskill I could hardly move. Then we got out and started to shoot with the pig, which was scared. Then he ran past the camera – if he'd gotten away we'd have been devastated – but as he went by I caught him by the foot and hung on. So I was the hero. This time I didn't get home for two weeks."

Not only have the names of many of the cinematographers at Famous Players faded into the mists of time. Forgotten as well are many of the films in which a youthful Folsey was involved. One he recalls vividly is *Snow White* (1919) with Marguerite Clark.

"It was made about 30 miles outside of Savannah, Georgia, on the Thunderbird Plantation. The director was J. Searle Dawley and Lyman Broening was cameraman. Paramount sent an entire company there. Marguerite Clark always had her sister, Cora, as her secretary. I had worked in several pictures with her, beginning when I was a 16-year old kid, and she was always looking out for me. She'd say to Cora, 'You see that Georgie gets enough milk and some sandwiches.' She was very cute, a little woman with tiny feet.

"All the little kids who lived on that plantation were completely fascinated with our arrival and when we were working they watched us very carefully. Some of them had never seen a motion picture because they were too far away from a big town. The time came when the director said to his assistant, 'Let's get the dwarfs out here,' so they sent a car to the hotel to get them. They brought them out in a limousine. The kids were having a great time, all excited and laughing, when the door opened and out came the seven dwarfs in their costumes and funny hats. It scared the heck out of those kids! They ran for the woods and hid behind their mothers and behind trees and stared in astonishment with great, big eyes."

The deep South had changed little since the

end of the Civil War. "We went down to the slave quarters, which was close to where we were working, and there were a lot of little brick houses that the slaves used to live in arranged in a ring around a communal fireplace. Although they were no longer slaves they still lived in those houses. They were singing and it was very beautiful.

"I was standing near Mr. Dawley when Walt Disney, who had seen the picture that day, told him that one day he would make it as a cartoon."

Another early picture Folsey remembers well is the 1920 version of Uncle Tom's Cabin, starring Marguerite Clark, with its famous sequence of Eliza crossing the icy river with a pack of bloodhounds in pursuit. It was filmed in Maine in February."

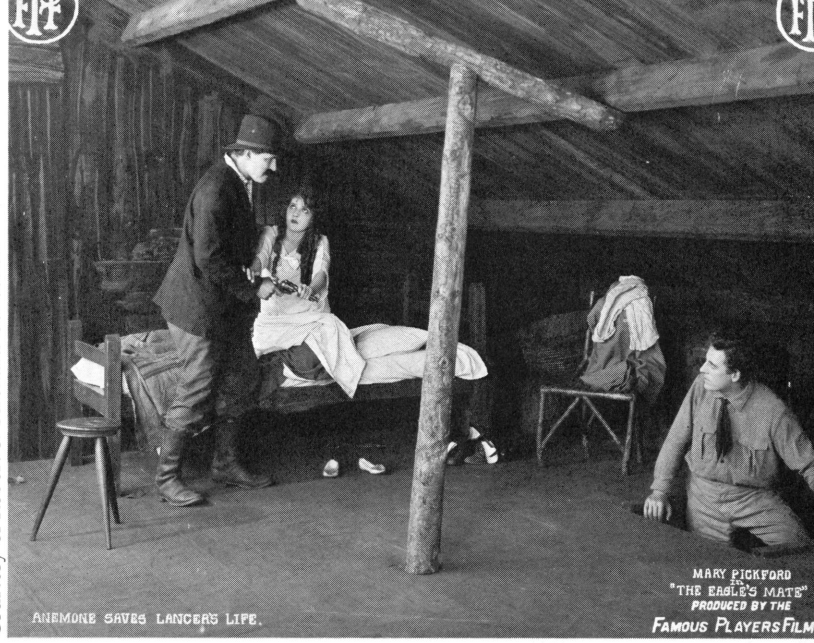
Sam Hardy, playing Simon Legree, was to chase Marguerite Clark across the ice, but, Folsey said, "When we got to the location, there wasn't any ice! It had gotten soft and moved away. The assistant director had a black look on his face because he had looked at it the day before and it was all right. We had to chase around and find it again and then shoot the scene."

Folsey reminisced about his elevation to cameraman – the position that would later be designated as cinematographer or director of photography:

"I was 19 and had been an assistant for three or four years, and I was beginning to wonder when I would ever be able to get into something else. There was a picture another cameraman was going to work on. His name was Jacques Monteran. I had been elevated to what they called a second cameraman – that means a guy who ran the camera, like an operator. They had two cameras set side by side to shoot an American and a foreign take so they could eliminate all the shipping of prints overseas; they'd ship the negative over and make the prints in Europe, which was a good economic move.

"It was interesting working with the various cameramen and trying to learn what was behind their thinking. For instance, Arthur Miller had been a jockey and was always wrapping himself around his huge tripod and reaching up to grind it, like a monkey. He was a very fine cameraman. We had some Bell & Howell cameras, and we also had Moys, Prestwiches and Pathes. Nobody wanted to use the Bell & Howells because they looked so complicated. We had them in the cellar, down in the storage. Miller finally had a picture in which he had to shoot across a big, circular pond in a hotel. Knowing that the Bell & Howell had a lens turret, he elected to use it on that picture. He was the first. He'd shoot across, and when he needed a closeup he'd throw that turret over to a three-inch lens. The lenses were very slow; they were f4.5 Voigtlander Helliars. We had no color temperature problems until color came in much later. The big change was when they changed from arc lights to incandescents, and that was very difficult.

"Irvin Willat was a director and his brother, Edwin, a cameraman. One of them invented the number board as we know it today, where the numbers can be changed instead of being written on a piece of paper. I was probably the first assistant to use one, because they brought it to Dawley and he told me to use it. That's a minor bit of history, but we didn't always have number boards. There was no clapper on it because we didn't have sound. We didn't have script clerks, either. Somebody had to tell me the numbers – the assistant director, usually.



Courtesy of Robert S. Birchard Collection

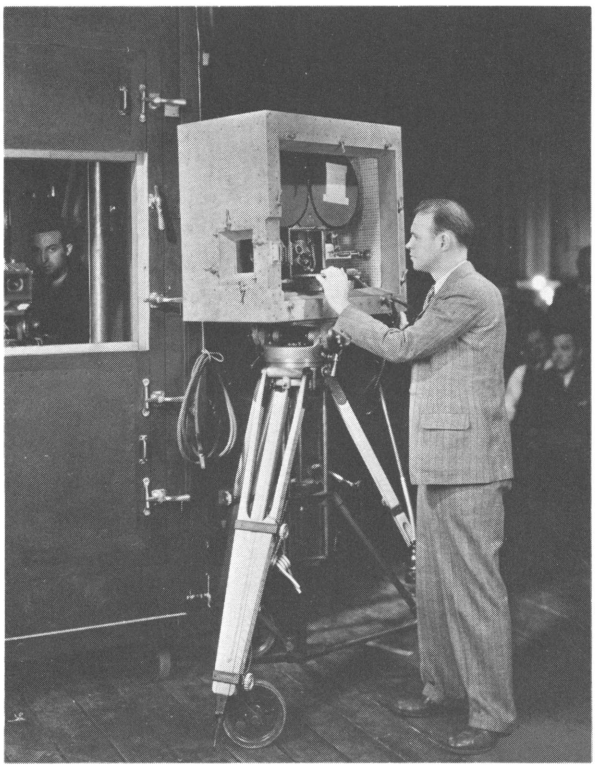
Mary Pickford and James Kirkwood (at trap door) in Famous Players'* The Eagle's Mate, *in the summer of 1914.

"One picture we were going to do was with Alice Brady and it was full of double exposures because she played herself and her sister. I don't know whether this cameraman was nervous about doing the picture because of the double exposures that were entailed or whether he was just homesick for France. He said one night, 'I quit! I go to France and I raise violets!' And he quit. I don't know what he meant by raising violets, but that's what he said. The director asked me, 'Can you do the picture?' I had been working with cameramen and doing all the double exposures, so I knew how. Besides, I was 19 years old – I could have moved the studio if they'd wanted it. I said 'Sure,' so they made me the cameraman.

"I'll never forget that night when I came home to my house in Brooklyn. There was a party – there was always a party going on at my house, with kids from all over the neighborhood coming over to dance. My sister was keeping house for me and they gave me some dinner and I told all my friends that I was going to be a cameraman. They didn't realize what a gigantic step this was for me, but I realized how important it was, particularly at so young an age."

Many details of the production are fresh in Folsey's mind after almost 70 years.

"Alice Brady was in love with a man named Jimmy Crane, and you can't make a woman in love look bad no matter how much you try, so I had everything in my favor," he smiled. "She looked gleaming and wonderful and she was very happy with the results. The director, Kenneth Webb, was a man of great confidence, a very kind and helpful man. His brother, Roy, was a musician and was the assistant director. We all got along wonderfully. Roy, who be-



Above: ***Folsey kneels beside Estelle Taylor on the set of one of Paramount's first talkies,*** **Pusher in the Face,** ***in March 1928. The man at left is unidentified; others standing are director Robert Florey, Lillian Walker and Raymond Hitchcock.*** **Below:** ***On the set of*** **Dangerous Nan McGrew** ***in 1930, Folsey demonstrates his soundproof camera blimp. Early talkies were shot from airtight booths like the one at left.***

Photos from Marc Wanamaker/Bison Archives

came a musical director at RKO, was also very helpful. I'd known him since 1919 – he just died recently – and I never heard him utter a bad word or an obscenity of any kind.

"The director helped me a great deal with the ways to do the double exposures. We did a lot of them with black velvet. She'd hand herself rings and do all kinds of things that were unusual for that time. We used Pathé cameras and there was no Veeder counter, which means there was no mechanism to record the number of turns or the amount of frames that we had used. We had to mark the film very carefully a certain way so we could put that film back on exactly the same frame line as we had when we took it out. As an assistant I'd had to count the numbers of turns that the cameraman had. He'd start, 'one...two...' and I'd continue, 'three...four...' to myself, and when he finished and faded out, I had to get the number that he hit the fade on and write it down so I could keep it straight. Then I had to take the film into the darkroom and take it out of the magazine and put it in a can and write on on tape the scene number, the date, and the numbers of the fade out and so on, and tape them inside the can. At night I'd reinsert those into a steel box and into a ledger that I had, so there were three different series of marks that I could rely on. Maybe six weeks later they'd say, 'Give us scene number so-and-so,' and I'd go and pick out the can and put it in the magazine, bring the taped numbers out, thread the camera up and get it in the right perforation mark, and tell them I was ready. Then I would tell them where to fade in and how long to go and fade out. I'd been doing this for a long time when this miracle happened and the cameraman decided he wanted to go to France and raise violets. My first assistant in those days was a kid named Billy Schurr."

The lack of precision of the Pathé camera used in making the double exposures posed no problems in this picture. "Pin registered movements didn't come until the Bell & Howell cameras, but there was no trouble because our double exposure work was not that precise. If there was a variance you couldn't tell it because it was done mostly in fades in and fades out and holding blank spaces and fading into those spaces. The film was very slow. We had no meters and we had no way of knowing film speeds. I never heard of film speeds till the meters came in. We used Eastman film. We had all sorts of gadgets to try to avoid getting static and having little highlights go all over the film – wooden pressure plates and keeping a heated lamp underneath. None of it worked, of course; it was an electrical discharge. Finally Kodak brought in X-back and it stopped the static.

The studio heads were delighted with Folsey's work in the very popular picture.

"They raised my salary from $28.50 to $40 for that picture," he noted. "Some cameramen were making much more money than that. I knew I was underpaid, and I had just been given an offer my a man named Scott, who was a location man, who saw the picture and offered me $175 a week to do another picture with an outfit away from Paramount. I had sense enough to know that my security and best interests lay in being where I had all my friends and I knew all the lights, the electricians, the laboratory and the studio, so I went to the management.

"It took three days to get in to see them, but when I finally saw J. N. Nolte, who was the head of the studio, he said, 'George, we've decided to give you a raise. We're going to increase your salary to $50 a week.' Just a month or so before I'd been making $28.50, and before that I was making $22.50 as an assistant. I said, "Mr. Nolte, that's very kind of you and I appreciate it very much, but I've just been offered another job.' A man named Smith, who was also a member of the board, asked how much they wanted to pay me. I told him and he whistled. Then he said, 'Would you sign a contract with us for six months for $100 a week?' and I said, 'Yes, sir!' – quick! I think it was a wise choice – I stayed where I was."

Folsey was assigned to some of the bigger pictures with the studio's leading stars. "Some time later I made a picture with Billie Burke, one of the last romantic comedies she did in which she was a leading

BRAVO!

CONGRATULATIONS TO THE 1987 ASC AWARD WINNERS AND THANK YOU FOR ORIGINATING ON *EASTMAN* FILM.

Eastman
Motion Picture Films

Kodak

© Eastman Kodak Company, 1988

Later, MGM luminaries, Folsey and Judy Garland.

lady, not the zany character that she became. She was a sweet, lovely lady. When we worked at night she would order, from the Ziegfeld Roof, chicken à la king for the whole company. She used to sit on my stool and grind the numbers just to amuse herself. I didn't hear anything from her all through the picture. And then I made another with her, *The Education of Elizabeth*, directed by John Robertson in 1920. When we finished that, down from her dressing room came a package for me and one for the director. In my package was a green gold cigarette case, a note thanking me, and a check. I thought it was for $50; I looked again and it was for $500! Flo Ziegfeld, her husband, had called me previously and said that Miss Burke appreciated my photography and wanted to give me a present; would an automobile be acceptable? I finally said that I appreciated it very much but it wasn't necessary, that it was a great privilege to work with Miss Burke. He said he was calling from the Ford dealer's and he was planning to send me a Ford. The cigarette case and the $500 were about equal to what a Ford cost in those days."

It is remarkable that the better cinematographers of the time were able to provide such exquisite lighting as was necessary in photographing glamorous actresses such as Miss Burke, given the lighting equipment then in use. Folsey said, "We had those big Cooper-Hewitt lights and we had arc broads with spun glass in front of them to subdue that light and we'd use them as modeling lights.

"I remember doing a picture in 1924 with May McAvoy and Dick Barthelmess, *The Enchanted Cottage*, where she is an ugly girl. She marries Dick, who's a cripple, and they go to the enchanted cottage for their honeymoon. In the moonlight they become beautiful to each other. We had a closeup of May, who was a beautiful girl but here she had buck teeth and a broken nose and so on. I set up the camera and also set up an 8" X 10" still camera with the plate reversed so I could write on it. I put her in there and we faded out, and I said, 'Hold it right there, May; don't move. I went over to the still camera and put a black cloth over my head and sketched her head, her eyes, her nose, her shoulders, where her chin came, down her sides, and so on. I said, 'okay, now you can go up to makeup and change.' She took all that stuff off and came back looking like May McAvoy. Then I fitted her into where I had marked her position, went back to my camera, had her hold very still and we started to fade in – a six-foot fade, as I recall. On the screen there wasn't a hair out of place, she just became beautiful in front of your eyes. John Robertson, the director, jumped up in the projection room and said, 'George, that's absolutely wonderful!'

"I had worked a little bit on *Dr. Jekyll and Mr. Hyde* (1920) for Robertson. They sent me over to the 44th Street studio to run an extra camera while Roy Overbaugh was doing it. There was a scene where John Barrymore as Dr. Jekyll had made his potion – I had a close up camera on him and I didn't know what he was going to do. When I started to crank he drank the potion, got a diabolical look on his face, and he grabbed himself in the middle and made a terrific grimace and went down under the counter. While he was down there he pulled his hair down and shoved false teeth into his mouth and he had been chewing on some soap and his mouth was frothing. He came up with the damnedest look on his face I'd ever seen. I almost stopped cranking – it just scared the hell out of me!"

Artistry always was more important to the great cinematographers than mere technical expertise. Folsey's greatest work lay ahead of him at Paramount, MGM and other Hollywood studios as the sound era began. A hint of the future may be found in the ideas he formulated in his salad years.

"I used to walk up Fifth Avenue and stop at Alban's, a very well known portrait studio, and it gave me an interest in that type of photography," Folsey said."I'd go to museums and try to learn, and I wondered why I couldn't get my scenes to look like the paintings. That bothered me for years, and after I became a cameraman I tried desperately to do something about it.

"I was in a museum in London one Sunday, and I came across a painting of a young boy stepping out of a bed with a lot of draperies and curtains blowing and soft, suffused, absolutely beautiful light. I must have stood by it for half an hour and walked around and looked at it, went away and came back to it. This seriously affected my concept of how the light should look. I tried reflected light and bounce light, and light through silks. It was in the early days of the motion picture – or my part of it – that I began to use soft light, and it had a profound effect on the quality of my light. The painter was George Ingres and he was wonderful. For many years I watched his work whenever I could find it. I give him credit for all the advances in lighting that I had anything to do with." △

WE'RE MOVING PICTURES IN 43 COUNTRIES

The Image Bank & Film Search.
Representing the finest
Cinematographers
in the world,
throughout the world.

More than ever, the only stock
worth watching.

If you've got winning
stock footage
call us at: 212-532-0600

ILM SEARCH®

IMAGE BANK COMPANY

Madison Avenue, New York City 10016
2) 532-0600 Telex: 4973657 FILMS
: (212) 779-9732

3 Alcott Avenue, #201
Angeles, CA 90035 (213) 550-1947

THE IMAGE BANK®

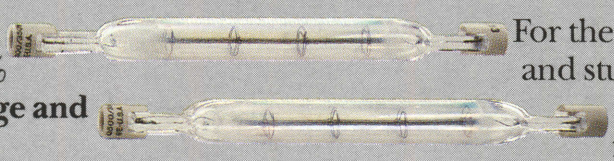
Headquarters:
111 Fifth Avenue, New York City 10003 (212) 529-6700
Telex: 429380 IMAGE Fax: (212) 529-8886

TIB, THE IMAGE BANK, TIB THE IMAGE BANK and FILM SEARCH
are Trademarks of Fried Kanney Associates, Ltd. (A/K/A The Image Bank)

1988 Fried Kanney Associates, Ltd

GE IS THE LIGHT THAT TAKES THE HEAT OFF THE PERFORMERS

GE Lighting lights up the night while generating 35% less heat than ordinary stage and studio lights.



The pace is frantic. Five minutes to airtime. Late breaking news has just been handed in. As the countdown begins...the lights go on.

For the performers, ordinary stag and studio lights can be torturou because they generate so much heat. That's why GE invented the GE Watt-Miser Quartzline® lamp.

This Quartzline lamp, with a revolutionary infrared reflecting coating, delivers 90% of the

ght of ordinary stage and studio lights while sing up to 35% less wattage. It generates less eat, which means more comfortable working onditions for the people onstage and the eople backstage. It also reduces the load on ne air conditioning system and fits existing xtures.

With features like these, it's not surprising that more and more people are using them. Because when what's onstage is hot, GE Lighting keeps it cool.

GE is Light.

GE Lighting

Theatrical Cinematography Noted by ASC, Academy

***Ballhaus*, Broadcast News**

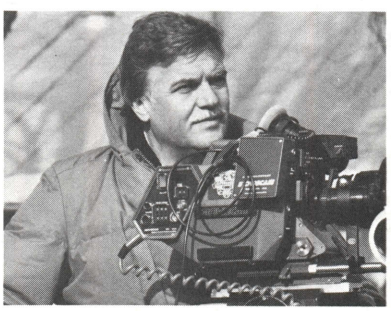
Photos by Kerry Hayes

Broadcast News, Images Fast & Frantic

Michael Ballhaus, ASC
Academy Award Nominee

Versatility and freshness of approach are evident in all the work of Michael Ballhaus, who was nominated for an Academy Award this year for his work in the enormously popular *Broadcast News*. The Berlin-born Ballhaus first gained international attention for his photography in 15 productions directed by Rainer Werner Fassbinder, including the acclaimed *The Marriage of Maria Braun*.

In 1982, he moved to New York and shot his first American feature, John Sayles' *Baby, It's You*. He went on to work with directors James Foley on *Reckless*, Marisa Silver on *Old Enough*, and Bobby Roth on *Heartbreakers*, and others. Ballhaus was acclaimed for his work on the television version of *Death of a Salesman*, starring Dustin Hoffman, and his association with Martin Scorsese has resulted in two fine films, *After Hours* and *The Color of Money*. He has recently returned from Morocco, where he and Scorsese were photographing *The Last Testament of Christ*. Ballhaus also worked with the star of *The Color of Money*, Paul Newman, on his feature adaptation of Tennessee Williams' *The Glass Menagerie*.



Broadcast News is a romantic comedy set in the world of network television news correspondents. It stars William Hurt, Holly Hunter and Albert Brooks, and is the first film from writer/director/producer James L. Brooks since his Academy Award-winning *Terms of Endearment*.

For this film, Ballhaus moves from the small rooms and restricted stages of *The Glass Menagerie* to the vast backdrop of Washington, D.C. *Broadcast News* was filmed on over forty locations in and around Washington, D.C., from February 1986 to April 1987. The locations included Baltimore's BWI Airport and Trailways Bus Terminal, the Marwood Estate in Potomac, Maryland, the Stuart

Hobson Middle School in northeast Washington, as well as the Hay Adams Hotel, the J.S. Marriott Hotel, the Hotel Bristol, and seven private residences. In addition, the production spent three days filming at the Charles Deering Estate in Miami, Florida.

Brooks believes in location shooting. *Terms of Endearment* was also shot entirely on locations, in Houston, Texas and Lincoln, Nebraska. "There is something great about the commitment to location," he says. "You wake up in the city the characters wake up in, you read the newspapers the characters would read, you hear the gossip the characters would hear."

Although the *Broadcast News* production team was adamant about not presenting a picture postcard version of Washington, they did take advantage of a few of Washington's famed monuments. "I wanted to try to complete the picture without one monument in the background," says Brooks. "There were reasons why that didn't happen, but I almost made it ..." The Jefferson Memorial, framed by Washington's famed spring cherry blossoms, was the setting for a romantic scene between Holly Hunter and William Hurt, and the White House made a momentary appearance as a backdrop for a news piece.

For the newsroom, production designer Charles Rosen converted an entire floor of a renovated office/rental complex at 1001 Pennsylvania Avenue. Suite 200, with its masses of cables and lights, truly assumed the appearance of a network newsroom. Because of the lack of available soundstages in Washington, *Broadcast News* built its control room and accompanying studio set in the backstage of the outdoor Wolf Trap Theater in Virginia. This set featured a bank of 81 monitors at two tiers of work stations and boasted the latest in available technology.

Programming the monitors in both the newsroom and control room to work in conjunction with the filming presented some logistical problems for the production. To ensure accuracy, the help of two senior news professionals was enlisted in coordinating and producing all the news pieces appearing on the monitors. The finished pieces had to be converted to the proper sync for film of 24 frames per second from the normal 30 fps of video.

The goal of the *Broadcast News* production team was to accurately capture the spirit of a newsroom. "I wanted to be accurate without being literal," says Brooks. "I didn't want to say 'We're copying the NBC newsroom exactly, isn't that wonderful,' because I don't know how wonderful that *is*. But if we were able to be accurate about it, so that somebody who worked at a network newsroom could walk in and go to work, and yet still have something in there that owes itself to the more romantic past of journalism and a more romantic genre of movies about reporters... that's what we were trying for.

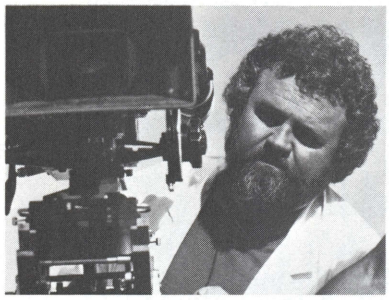
"The technical changes in broadcasting are happening so fast that the set we built for the control room used in the special report doesn't quite exist anymore on the network level – just three years ago it did. But it allowed us to show the intimacy between Tom and Jane while they're doing the broadcast. I wanted that window looking down on the studio very badly. And levels were very important."

In addition to the Oscar nomination for director of photography Michael Ballhaus, *Broadcast News* has garnered six other Academy Award nominations.

Empire of the Sun, A Recollection of War

Allen Daviau, ASC
Academy Award & ASC Nominee

Empire of the Sun, a world-wide undertaking and a true filmmaking adventure, has earned for Allen Daviau two award nominations for cinematography, Academy and



Photos by Murray Close

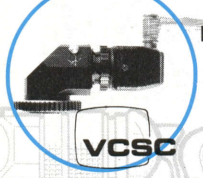
***Daviau,* Empire of the Sun**

Measurements:
L 2.05 inch · W 1.97 inch · H 1.50 inch ·
Weight: 180 g

Prospectus C 11-1

VCSC

the world's smallest VIDEO CONTROL SYSTEM COLOR



Flickerfree by 25 f.p.s.

VCSC

in connection with
ARRIFLEX 35 III + ARRIFLEX 35 BL

peL deniz

PRÄZISIONS-ENTWICKLUNG DENZ
Josephsburgstr. 81-83 · D-8000 München 80
☎ (089) 4316047 · TX 5-216681
FAX (089) 4316967 West-Germany

ASC. The production spanned three continents and represented new challenges in China, Spain and England. Equipment had to be sent by sea literally around the world. Planning and logistics were staggering tasks for a picture which entailed every photographic risk imaginable. The need to work with, in and around the idiosyncrasies of three cultures made adaptability the watchword for *Empire of the Sun*. An in depth examination of the film can be found in the January 1988 issue of *American Cinematographer.*

Empire is based on an autobiographical novel by J.G. Ballard and depicts the life of a young English boy in Shanghai during the World War II Japanese takeover. Shanghai was the location for the scenes of the city and those which required large numbers of Chinese extras. Shots involving the WWII era English settlement in Shanghai were filmed in the Sunningdale area of England, and the Shanghai prison camp was recreated in Spain. Daviau's challenge was to combine these elements and form one consistent and effective China as a backdrop for the story of the boy.

According to Daviau, the Chinese were eager to help and encourage co-production. Differences in culture, however, had to be overcome with patience and advance planning.

"The Chinese are not used to having things move with the speed that we are. They are not used to changes being made and accommodated. I'd say this is not just China, but many other countries as well. We – the British and Americans – are very impatient people and we want to have the option to change things up to the last minute."

As a result, the crew of *Empire* had to begin preparations long before the March 1987 start date. "I'd say the major thing for China is this: you can bring in what you want, but the wheels have to start turning very early," says Daviau. "Getting people and equipment in and out of China is something that takes months of advance planning. You understood in November 1986 that you weren't going to start shooting until March, but the decision on what equipment would go had to be made right then, because equipment going by sea took over two months to get around the world."

The cloudy skies of Shanghai in March intercut well with those of England in the spring, and helped Daviau to infuse the Shanghai scenes with a sense of doom. "For the look of the film, we wanted to have the lushness of his home and the kind of lifestyle he led, the mass chaos that was Shanghai, and a total feeling of apprehension," says Daviau. "We wanted to establish that Jim is a very protected, spoiled boy."

Empire of the Sun was shot in 1:85:1 format with a 1:66:1 hard matte. Daviau's choice of cameras was his usual Panavision, and a full complement of fast, high quality Primo lenses made by the Leitz Company of Canada was used. In addition, two older Ultra Speed lenses, a 24mm and a 29mm, were taken. "The 29 is one of my favorite focal lengths and I just couldn't see doing the film without it," Daviau says.

Empire provided Daviau with the opportunity to use three different negative stocks. Eastman 5247 was used for most day exteriors and many day interiors. Some of the darkest days in Shanghai, however, called for the added speed of the new 5297 daylight balance stock. "I had tested it in England on a fairly average rainy day and found it to have a finer grain structure than 5294 with the 85 filter," Daviau noted. "I wound up rating at ASA 160 to achieve the high 30's, low 40's printing lights I want to have with the high speed stocks."

On several other occasions the new stock was used to get some extra shots after the light was "gone" for the 47. According to Daviau, these shots intercut well, but such mixing of stocks inside a scene should be for emergency use only.

Daviau feels that the color timing is an equally important creative opportunity for the cine-

matographer, especially in cases involving several types of stock. "Timing gives you the chance to give each scene in the film its appropriate 'character' through manipulation of color and density," he explains. "In the case of some of the 5297 footage, our color timer at Technicolor, Bob Raring, was able to remove some of the warmth that seems to be characteristic in the shadow areas of that stock and give those scenes a more somber quality. At other times, neutral scenes were warmed up, and still others matched exactly with the dailies. Sometimes a shot that may have been printed 'incorrectly' in dailies may provide inspiration for the timing of the rest of the scene. I feel that if I am not present for the final timing of a film at the lab I am really missing out on one of the most fulfilling aspects of cinematography."

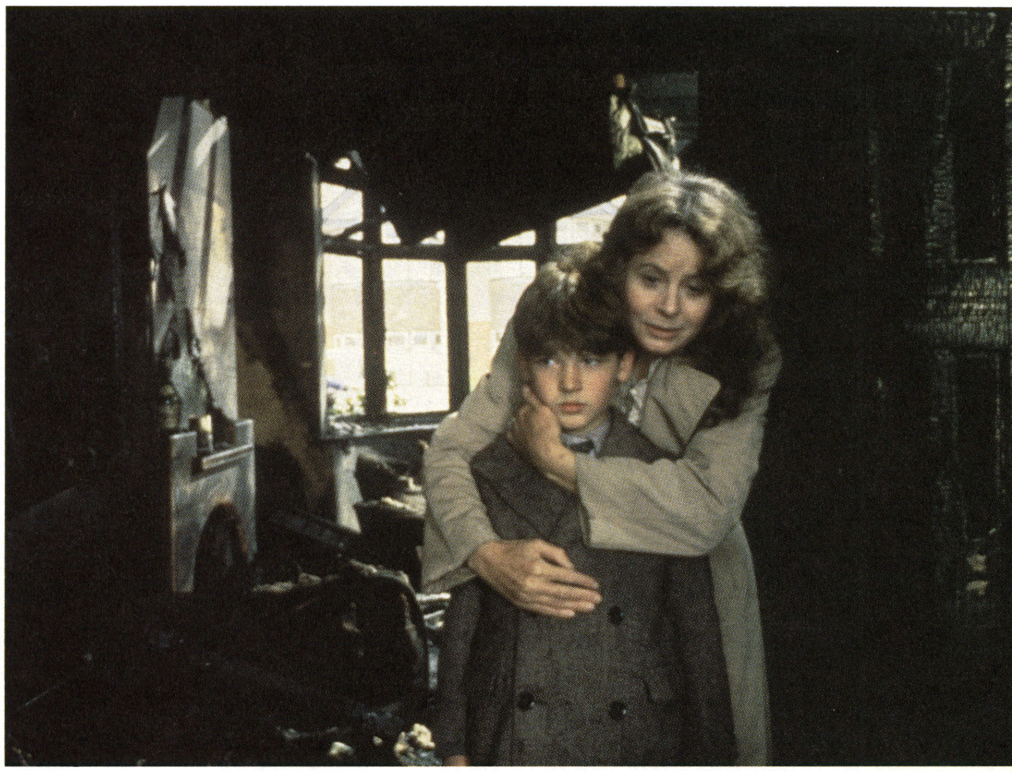
This attention to detail is characteristic not only of Allen Daviau, but of the entire crew of *Empire of the Sun*. In a production as ambitious as this, care is absolutely crucial to success.

Photos by Murray Close

Hope and Glory, About Children and War

Philippe Rousselot
Academy Nominee

The look of a feature film isn't something you think up. It is something you dream up. That's the core of Philippe Rousselot's approach to cinematography. That and one more thing: "I can't summarize my philosophy of filmmaking in a few words. It takes a lifetime to really know what it (filmmaking) is about. I don't mean that to sound pretentious. Technology is as fickle as fashion. It changes our way of working, and also the way we look at things. It even changes our dreams."



***Rousselot*, Hope and Glory**

Rousselot earned an Academy Award nomination for his work on John Boorman's motion picture *Hope and Glory*, an autobiographical remembrance of World War II seen through the eyes of a 10-year-old boy in London.

He is the second Frenchman in the 60 year history of the Academy to earn an Oscar nomination for cinematography. The first was Ghislain Cloquet, ASC, for *Tess*, in 1980. (Cloquet was actually born in Belgium, but his family moved to France when he was 16, and he did almost all of his work there.)

Rousselot attended the Vaugirard School, a national film school. Afterward, he went to work as an assistant cameraman for Nestor Almendros, ASC. "Nestor is a great friend who has had a strong influence on me," he said.

In 1971, at the age of 26, Rousselot shot his first feature film, director Guy Gille's *Clair de Terre*. He has won Cesar Awards (the French equivalent of an Oscar) twice.

Rousselot met Boorman when the latter was working as a line producer in France. In 1984, he shot the *The Emerald Forest* for him. "There wasn't a long line of cinematographers anxious to spend four months shooting a movie in the jungle," Rousselot said. "When we weren't shooting, John would often talk about his boyhood memories."

Hope and Glory is very faithful to the souvenirs of Boorman's youth. "I'd ask him questions, such as, 'what was the color of the explosions when the bombs burst,'" Rousselot said, "and he would describe his memories."

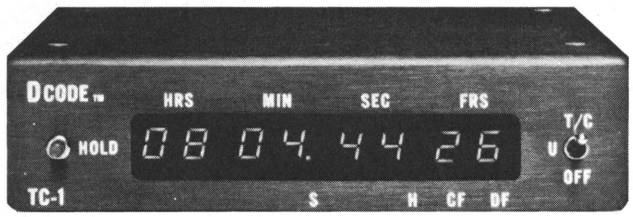
It is a very precisely crafted film. Boorman built models of every set. "He wanted to reproduce the world the way it looked to him as a boy," Rousselot said. He built an entire city street with cutouts of the London skyline behind it. There was also a set of the cottage where Boorman grew up, and the school he attended.

The sets, including the interior of the cottage and an adjacent

DCODE TC-1 TIME CODE READER

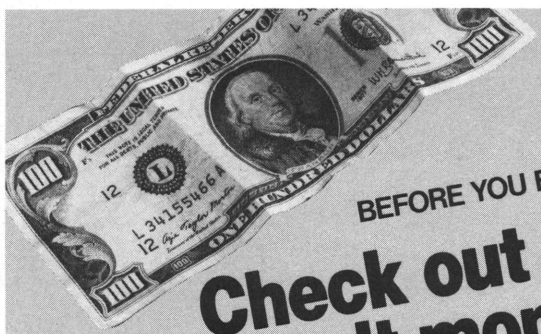
- *Reads Time Code from 1/50 - 50x speed*
- *Reshapes Time Code for copying*
- *60 hz sync from 24 or 30 frame code*

$395.00



DENECKE, INC.

5417-B Cahuenga Bl., No. Hollywood, CA 91601 • (818) 766-3525 • FAX (818) 766-3527



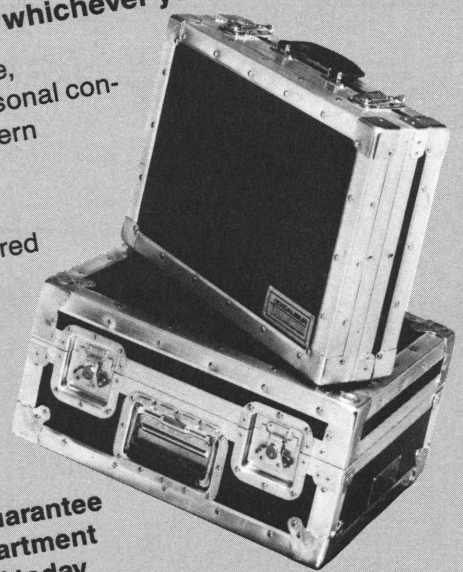
BEFORE YOU BUY ANOTHER CASE...

Check out Excalibur's no-fault money back guarantee.

• If for any reason you are not happy with your new Excalibur case, we will fix it, exchange it, or refund your money, whichever you prefer.

Excalibur stands for experience, confidence and service — personal contact with our expert staff, concern for *your* needs and prompt, on-time delivery.

Excalibur cases are engineered for durability, maximum security for your equipment and meticulous styling. The 'Excalibur Look' is smooth, polished and professional.



- **No-fault money back guarantee**
- **Full-service repair department**
- **It's easy to order — call today for information and price lists.**

EXCALIBUR INDUSTRIES

12427 Foothill Blvd., Lake View Terrace, CA 91342

818/899-2547

garden, were comparatively small, and there were scenes with many characters. The result was that Rousselot lit these sets very much like practical locations, using 100 watt bulbs in source lights, sometimes augmented by bounce light.

"We lit in bits and pieces," he said. "There is a certain logic to lighting. You want your light to come from recognizable sources, such as a Chinese lantern, a street lamp, or the moon shining through a window. The direction, intensity and color of light have to be accurate. At the same time, the screenplay often requires you to light in a certain way for aesthetic purposes."

Rousselot believes his job as a cinematographer is to find the point where these two purposes intersect. Because of the way production was scheduled, most of the interiors were completed before he shot exteriors. Then, it became a matter of matching the quality of natural light to the interiors. Often, this came down to using smoke and constructing towers and hanging diffusion to mask the sun.

Many of the English crew members were Boorman's age, so their memories of the war served to reinforce the look designed for *Hope and Glory.* However, Rousselot also drew upon his own visual memories of what it was like to see the world through the eyes of a 10-year-old.

This involved selective use of low camera angles, and composition which included placing props (such as furniture) in the near foreground to make them loom larger.

"We wanted to use the point-of-view of a 10-year-old in certain scenes, but we were careful not to overdo it, so we didn't call attention to the camera," Rousselot said.

He primarily worked with an Arriflex BL 3 camera with a zoom lens used for variable focus. There were some action sequences where two cameras were used for coverage, and several scenes required a Louma crane for point-of-view. His principal emulsion was

Eastman high speed color negative film 5294, rated for an exposure index of 250.

"This is a very delicate emulsion with an excellent range of contrast, which allows you to make a strong statement with your lighting," he said.

Most exteriors and the dream sequences were produced on Eastman's medium-speed 5247 emulsion. The dream sequences called for a very desaturated look, almost black and white. "We did a great deal of experimenting with the lab (Technicolor, in London) using different intermediates to get the right amount of desaturation with just a hint of color," he said.

What do you do for an encore after your peers nominate you for an Oscar? "There are so many directors I want to work with," he said. "Every film is different. Every one has a different recipe. So every movie is like a new life."

Photos by Angelo Novi

The Last Emperor, From Splendor to Paucity

Vittorio Storaro, AIC
Academy and ASC Nominee

It must have been like coming home: Vittorio Storaro, AIC, working with Bernardo Bertolucci again in an epic film, *The Last Emperor.* In a large sense, that's where it all started—working with Bertolucci.

Storaro was born in Rome in 1940. His father was a projectionist for Lux Films; however, his heart had always been set on being a cinematographer. Storaro once said his father placed that dream in his heart.

Very early in his career, Storaro worked as an assistant cameraman on Bertolucci's *Before the Revolution.* Several years later while Storaro was still in his late 20s, he shot a black and white movie, *Giovinezza, Giovinezza* for director Franco Rossi.

***Storaro,* The Last Emperor**

In 1969, Storaro shot *Strategia del Ragno* for Bertolucci. The following year, when he was 30, Storaro worked with Bertolucci on *The Conformist,* followed by *The Last Tango in Paris* in 1972.

In 1978, Storaro won an Academy Award for *Apocalypse Now,* and for *Reds* in 1981. Asked to define filmmaking some years ago, Storaro replied, "To me, cinematography means writing with light on film so it creates certain images, moods and feelings when it is projected... I believe my work is the sum of the culture created by the cinematographers who have preceded me. Even the movies I attended as a youngster while I was studying were part of my education. What I watched became part of my unconscious memory. What a cinematographer does, then, is take all of that knowledge and add his own personality or point of view. The quality of the results reflect the sincerity with which a cinematographer handles an assignment."

It was evident during a brief telephone interview at his home in Rome that it would be impossible to faithfully cover the rich details of his long journey with Bertolucci during the filming of *The Last Emperor*. But, to the viewer, the stages of his voyage were clearly defined in the colors he employed.

The story of *The Last Emperor* is literally that. China's last emperor is torn from the arms of his mother and rushed to the Forbidden City, where the dowager empress is dying. He is three years

old. The story follows his life, growing up in protected splendor, facing treachery as he becomes a man, and the final thrust when Communists remove the last traces of an empire and he is reduced to becoming a gardener. The role of the man-emperor, played superbly by John Lone, is a convincing portrait of a human being at last become as submissive to his surroundings as once his subjects were to his power.

Says Storaro: "Inasmuch as every single color among the chromatic possibilities is symbolic of every single period of life, an attempt can be made to visualize the first years of Pu Yi's 'forbidden life' using only the colors in which he is permitted to live, in which he is allowed to learn.

"The high shield of this set of chromatic tonalities, while protecting him from the unknown outside, while closing the doors to any possible evil, isolates him from any possible good. The protection in which he is wrapped which allows nothing to enter, also allows nothing to go out."

The cinematography, thus is alive with 'forbidden' inference. From intimate close-ups to the sweeping scenes of the courtyard and back to the luxuriant colors of the throne rooms, the film lives and breathes royalty and religious fervor.

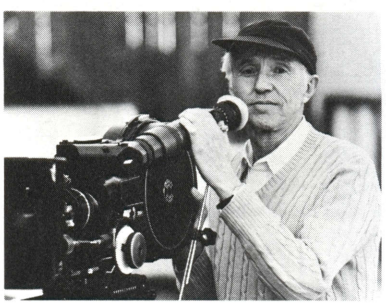
As it progresses and the emperor grows to manhood, is betrayed by those around him and becomes at last subjected to the colorless cold of a Communist prison, so the photography becomes wan with despair.

Matewan, a Film of Poverty and Gloom

Haskell Wexler, ASC
Academy and ASC Nominee

Ask most people about *Matewan,* and they'll say it's a period film about labor strife in a West Virginia coal mining town. The period is 1920. Ask Haskell Wexler, ASC, and he says *Matewan* is a story about people in difficult times trying to live their lives with some semblance of dignity.

Wexler spent eight weeks



in Mt. Hope, Virginia shooting *Matewan,* a John Sayles production, made by Red Dog Films. The film was made on a lean $4 million budget. Wexler's sensitive imagery transports the audience to the town of Matewan, where three different constituencies of miners are set against each other by a worried management determined to break a strike.

You experience the blackness – the almost total absence of light – in a coal mine. You are there when the desperate miners meet in secret in a hidden room lit solely by flickering kerosene lamps. You are in the middle of the scuffle when a fight breaks out in the quickening darkness of an exterior threatened

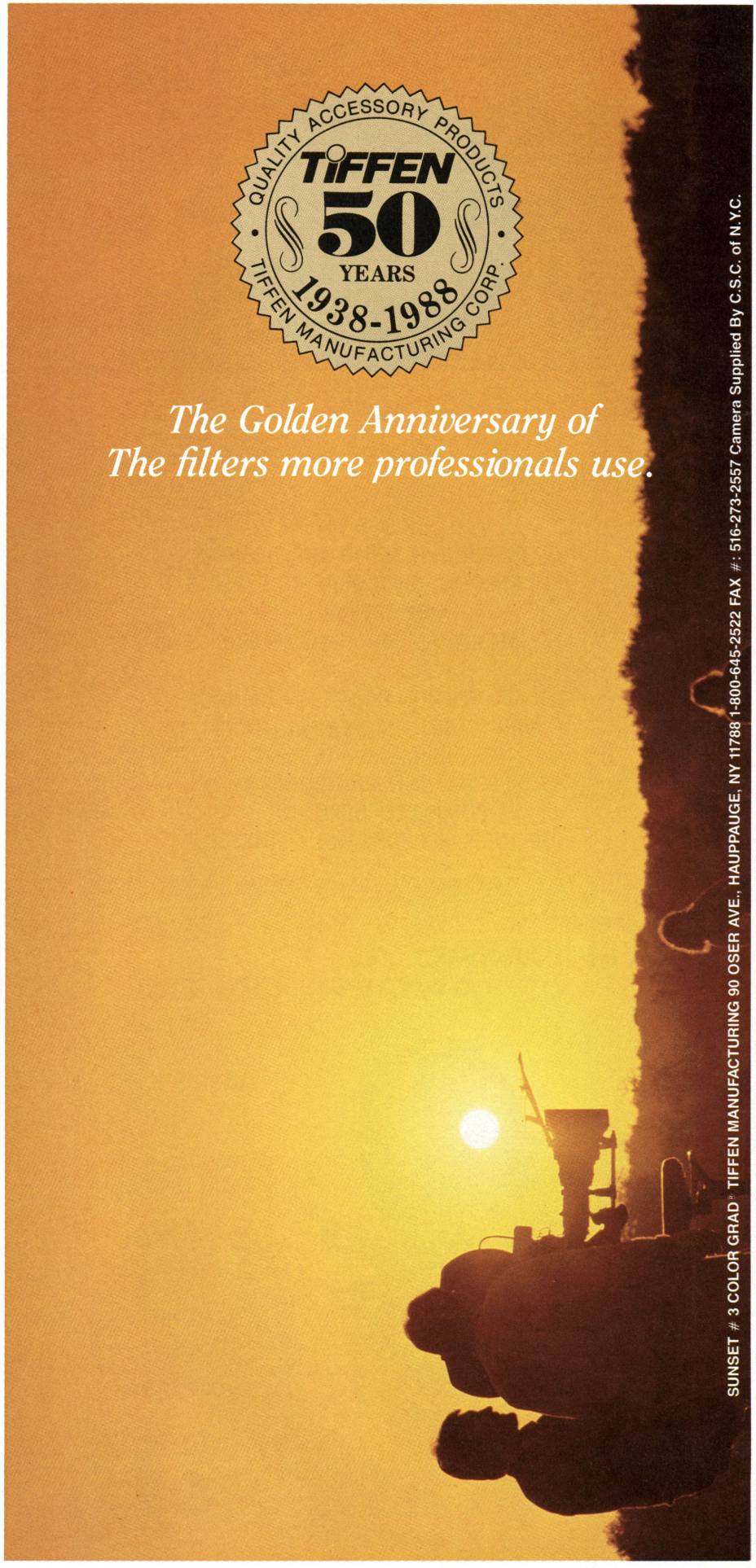
by a fast-rising storm.

Wexler's peers have nominated him for his work on *Matewan* for a 1987 ASC Award for a feature length motion picture, for an Oscar, and for the Independent Spirit Award given by the Feature Film Project West.

Part of the *Matewan* look comes from Wexler's visual memory. There was a time when he worked as a coal miner. However, most of his life, Wexler has been a filmmaker. He came out of the Merchant Marine as an officer at the end of World War II and set up a Chicago-based film production company. He shot commercials, industrial films and documentaries.

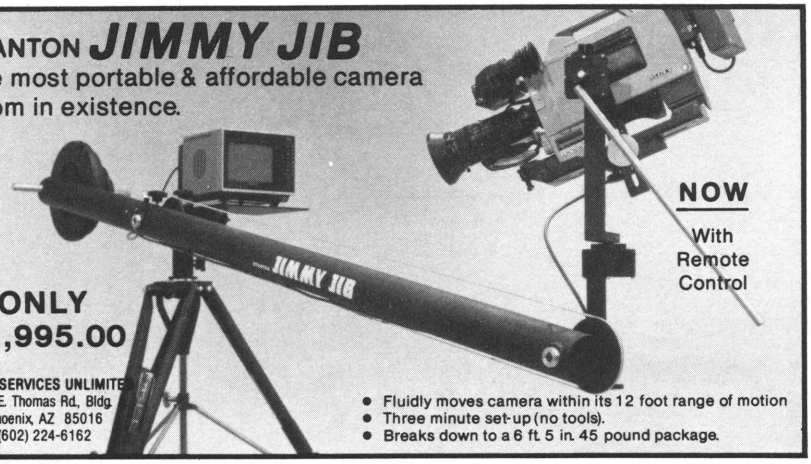
His early features during the 1950s included *Hoodlum Priest*, *Angel Baby*, *America, America* and *Face in the Rain*. He won an Oscar in 1966 for *Who's Afraid of Virginia Woolf* and another in 1976 for *Bound for Glory*. There was also an Oscar nomination for *One Flew Over the Cuckoo's Nest*. Other notable features include *Coming Home* and *In the Heat of the Night*.

Wexler has always had a soft spot in his heart for independent features. In 1968, he directed and shot *Medium Cool*, a reality film set against the background of the riotous Democratic party convention in Chicago. Several years ago, he produced and directed *Latino*.


QUALITY ACCESSORY PRODUCTS
TIFFEN
50
YEARS
1938-1988
TIFFEN MANUFACTURING CORP.
The Golden Anniversary of
The filters more professionals use.
SUNSET # 3 COLOR GRAD® TIFFEN MANUFACTURING 90 OSER AVE., HAUPPAUGE, NY 11788 1-800-645-2522 FAX #: 516-273-2557 Camera Supplied By C.S.C. of N.Y.C.

NAB Booth # 2223, 2224

STANTON **JIMMY JIB**
The most portable & affordable camera boom in existence.



NOW
With Remote Control

ONLY $2,995.00

VIDEO SERVICES UNLIMITED
2720 E. Thomas Rd., Bldg.
Phoenix, AZ 85016
(602) 224-6162

- Fluidly moves camera within its 12 foot range of motion
- Three minute set-up (no tools).
- Breaks down to a 6 ft. 5 in. 45 pound package.

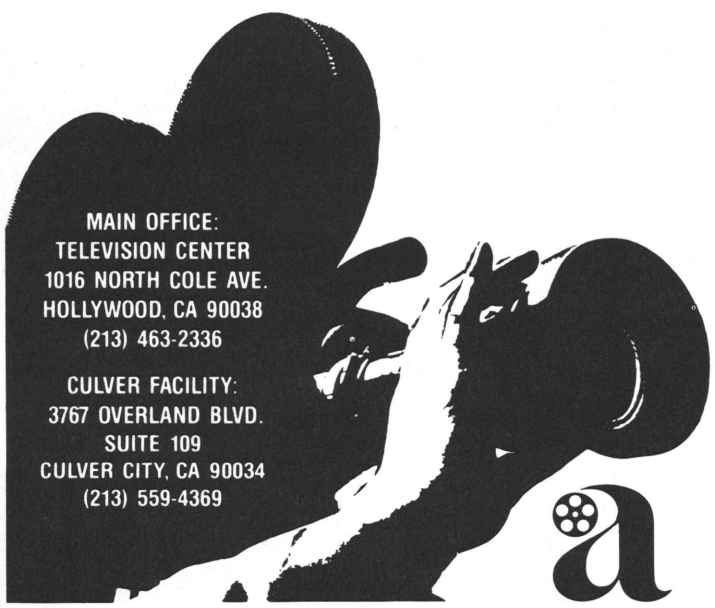
SINCE 1927

CREATORS
OF DISTINCTIVE IDEAS AND DESIGNS
FOR SPECIAL PHOTOGRAPHIC EFFECTS
AND OPTICALS
FOR MOTION PICTURE AND TELEVISION.

TITLES • MOTION CONTROL GRAPHICS
MINIATURES • MATTE PAINTINGS
BLUE BACKING • INSERTS
SPECIAL UNIT PHOTOGRAPHY
COMPLETE VIDEO LAB
ONE INCH NETWORK AIR TRANSFERS

B & W TEMP DUPES • 1:1 SOUND TRANSFERS

HOWARD A. ANDERSON CO.



MAIN OFFICE:
TELEVISION CENTER
1016 NORTH COLE AVE.
HOLLYWOOD, CA 90038
(213) 463-2336

CULVER FACILITY:
3767 OVERLAND BLVD.
SUITE 109
CULVER CITY, CA 90034
(213) 559-4369

On the *Matewan* look: period films are usually thought of as having a soft, pastel look. They are almost black and white with lots of diffusion. "That's because our visual memory of periods comes from old photographs," Wexler said. However, "we designed a clean, crisp look with realistic depth-of-field."

Color saturation was toned down. It was a dirty and dingy mining town. Buildings were painted neutral and dark tones, and they looked shabby and aging. The only splashes of brighter colors were mainly in the wardrobe and props in the Italian immigrant-miners' homes.

Wexler shot some 90 percent of *Matewan* on Eastman color high-speed daylight film 5297, including interiors and exteriors, day and night. That was shortly after the film was introduced. A handful of cinematographers had used it in specific daylight or mixed light situations. Wexler was the first to use the daylight film as his principal emulsion.

Kodak recommends use of this emulsion at an exposure index of 250. After testing, Wexler decided to base his exposures on an E.I. of 200 in real and artificial daylight, and in mixed light. This couple of stops of latitude gave him crisp depth and saved time and money in various low-key situations.

In one scene, an exterior involving a crowd of 20 to 30 people, a fight breaks out. Wexler was losing his daylight as dark storm clouds moved in. Sayles wanted the camera in the middle of the crowd, with everyone and everything in sharp focus. There were people three to four feet away from the camera. Others were 20 feet away. However, Wexler was able to pull a deep focus at stop T-11.

In general, the design called for a soft look. "I looked for soft light, avoided front light, and shot in side or back light whenever and wherever I could," he said. But mainly, he innovated. For example, a railroad track which ran through the center of town was used for long

OTTO NEMENZ INTERNATIONAL, INC.

Simply the Best

870 North Vine Street ☐ Hollywood, CA 90038 ☐ (213) 469-ARRI, 469-2774 ☐ FAX: (213) 469-1217
Hawaii Office: 850 West Hind Drive, Suite 117, ☐ Honolulu, HI 96821 ☐ (808) 395-1611

OOPS!

WHERE'S THE BLACKWRAP?

You'll need it to:

- COVER SHINY SURFACES TO ELIMINATE GLARE
- MASK LIGHT LEAKS
- CONCEAL CABLE
- MAKE BARN DOORS TO CONTROL SPILL
- MAKE A SNOOT TO SHAPE A BEAM OF LIGHT
- COVER EQUIPMENT FOR WEATHER PROTECTION

BLACKWRAP, flexible matte black aluminum, works because it's form-holding, heat resistant and tough. Cut or tear it in any shape you need. Double it for extra strength. Bent or contoured, lightweight Blackwrap will stay where you put it... And it's easy to remove (no messy adhesive).

BLACKWRAP IS FAST AND CLEAN.

Available from The Great American Market or your fine professional dealer in three convenient sizes:

12" x 50' roll
24" x 25' roll
36" x 25' roll

ONCE YOU GO BLACK YOU'LL NEVER GO BACK.

BLACKWRAP™

THE GREAT AMERICAN MARKET

826 N. COLE AVENUE HOLLYWOOD CA 90038
TELEPHONE 213/461-0200 · TWX 910 494 1233

dolly shoots. Wexler had the grips improvise a dolly which ran on the railroad tracks.

Why Matewan? "A movie can make an indelible impression on the people who see it," he said. "I thought *Matewan* was a story worth telling."

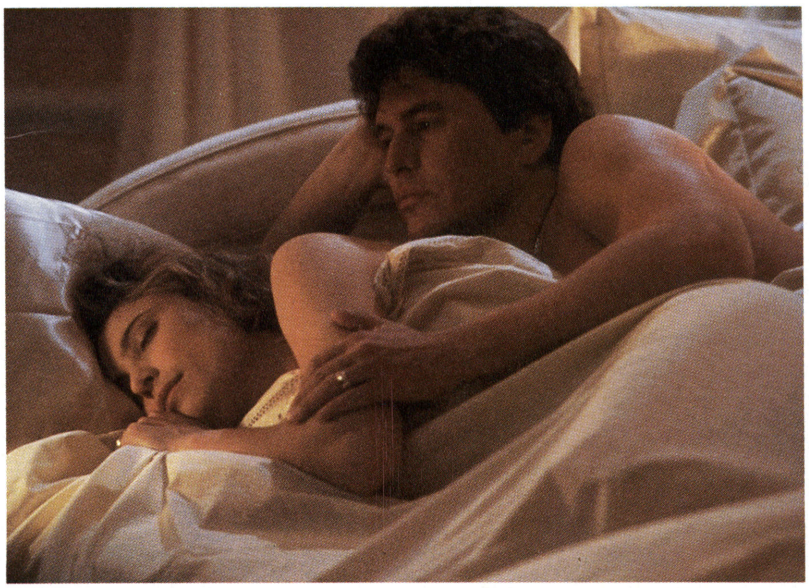


Photo by Bob Isenberg

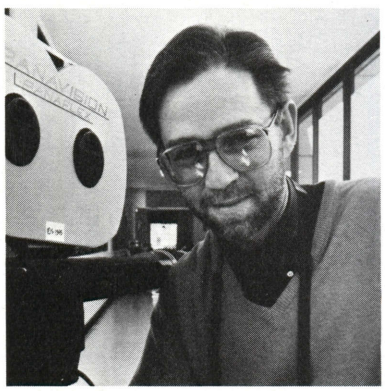
Someone To Watch... Is Something To See

Steven Poster, ASC
ASC Award Nominee

It's a foregone conclusion that the teaming of a pair of pictorialists as talented as director Ridley Scott and cinematographer Steven Poster will result in a visually elegant motion picture. This is certainly true of their collaboration on *Someone To Watch Over Me*, a suspenseful melodrama set in New York City. *American Cinematographer* carried a story on the production in the October, 1987 issue.

The story has a young police detective from Long Island, portrayed by Tom Berenger, assigned to protect a beautiful Manhattan socialite, Mimi Rogers, who is the sole eyewitness in a murder case. The murderer, a vicious professional played by Andreas Katsulas, tries to force Berenger to let him have the socialite in exchange for the safety of Berenger's wife and child. The case is complicated by a love affair between the detective and his charge.

It was decided that the picture would be made the sensible way: some exteriors and a few interiors were shot in New York, while most of the interiors were done on Los Angeles sound stages. The interiors included the very ordinary home of the detective and the lavish mansion of the wealthy young woman. Scott and Poster were determined not to use the usual New York settings, but after much location scouting they realized that only the familiar places identify the city to anyone outside of New Yorkers. Some magnificent location cliches such as Radio City Music Hall, the Chrysler Building and Fifth Avenue, therefore, became essential to the ambiance.



***Poster,* Someone To Watch Over Me**

Location shooting began

What Your Mind Can Conceive,
We Can Create.

Extraordinary Capability.

As important as technology has become, you still need what you've always needed of a post facility: *capability.* The capability to transform your ideas into reality.

Which is why you need a facility as capable as The Post Group.

We've Turned Experience Into Expertise.

As The Post Group we expect the unexpected. We start with the idea that nothing is impossible and sync up a wealth of technical resources and creative skills to our clients' imagination. We do it every day, turning years of experience into expertise.

The result: An interface to the most comprehensive spectrum of post-production services ever assembled.

Important Advantages You'll Recognize Right Away.

We have earned a reputation as one of the best facilities in the world and over the past 14 years we've had more than our share of "firsts." Something to consider when you have a lot of choices.

The Post Group reputation has risen out of a commitment to make real even the boldest of our clients' ideas; to devote the same energy to every job, every client—big or small. From the beginning we've been on the cutting edge, with aggressive goals and high performance standards. Because of this, our customers are getting their problems solved better, faster, more economically.

Our most important advantage has been our ability to please even the most discriminating clients. Responding to their demands, concepts and ideas has helped us create an exciting environment that attracts the best people in the business.

What Else Can The Post Group Do?

. . . What did you have in mind?

THE POST GROUP

Editing • Graphics • Special Effects • Sound • Film Unit
(2 1 3) 4 6 2 - 2 3 0 0

HEADS
Peter Lisand introduces a completely new line of quality engineered, highly flexible and trouble-free camera heads. We utilize the latest engineering, materials and technology to bring you a simple precision instrument that will provide a worthy companion for our internationally recognized tripods. We invite you to call or write to us for more information or to arrange for an examination of our new and unique camera support systems.
Precision support systems for your precision instruments
DRAG
LOCK
DRAG
Peter Lisand
352 River Road,
Edgewater, N.J. 07020
Telephone 201•943•5600

around Thanksgiving and ended in mid-January. "The picture could have taken place at any time of the year, but we happened to be there in winter, so we were always aware of the possibility of snow, which could have been a problem," Poster said. "We did have some snow and some rain, but we were very lucky—none of it stayed to change anything we'd shot. New York is probably one of the toughest places to shoot on the streets, but the same things that make it tough also make it fun and exciting."

Poster found plenty of fun and excitement shooting on Fifth Avenue during the Christmas season: "a million extra cars in Manhattan... thousands of shoppers, drunks and onlookers, the inevitable police problems since we aren't allowed to restrict the flow of traffic, the inevitable parking problems, and the cold and uncomfortable weather conditions."

The detective's house exterior is real and illustrates perfectly the conflict in Berenger's mind: it faces the river, looking across at glamorous Manhattan as typified by the gaily lighted Chrysler Building, while an "el" track lies in the other direction.

Poster recalls that they shoot both in front and back of the house. "The few nights we were shooting across the river, we got them to keep the Chrysler Building lit all night... We shot some day exteriors on the street and a lot of night work there." Because it was necessary to light three blocks for some of the night street shots, Poster set up a Musco light on one side and a construction crane with 12K HMIs on the other.

The huge Musco light was used again in shooting night exteriors of the Guggenheim Art Museum and two blocks of adjacent street. The police refused to let them follow the usual practice of wetting down the streets and buildings, because the water would turn to ice. Reflections from limousines and the flashbulbs of news photographers were helpful. Smoke was added to help light up night exteriors, but only when it could come from authentic sources, such as hot

CONGRATULATIONS
1987 ACADEMY AWARD NOMINEES FOR OUTSTANDING ACHIEVEMENT IN CINEMATOGRAPHY.

MICHAEL BALLHAUS, ASC
BROADCAST NEWS
20TH CENTURY FOX

ALLEN DAVIAU, ASC
EMPIRE OF THE SUN
WARNER BROS.

PHILIPPE ROUSSELOT
HOPE AND GLORY
COLUMBIA PICTURES

VITTORIO STORARO, AIC
THE LAST EMPEROR
COLUMBIA PICTURES

HASKELL WEXLER, ASC
MATEWAN
CINECOM PICTURES

Eastman
Motion Picture Films

Kodak

© Eastman Kodak Company, 1988

ALL OF THESE PRODUCTIONS WERE SHOT ON **EASTMAN** FILM.

dog stands and sewers.

The interior of the Guggenheim was completely re-lighted for the cameras, which proved almost insuperable on a three-night schedule. Lighting a space as spectacular as the Guggenheim presented a major challenge to Poster, and this challenge was intensified by the necessity to re-rig each night. Because of the fragile art work and understandable anxieties of the museum's curators, equipment could not be left in the galleries during the day. Limited time in the museum created the need for pre-planning as much of the lighting as possible, but flexibility proved more important than advance preparation.

"The initial concept I discussed with Ridley was not quite right," says Poster, "but I left options to turn things off and on at will, so we were flexible enough. When we walked in there, the lighting worked, but was a little bit boring. It wasn't quite the departure we wanted from the original look of the Guggenheim, so we started switching things off and turning other things on, modifying it a bit until we came up with something we liked. It was actually 180 degrees opposite from what we originally had, but I had laid it out so we could do that if we had to. In our final look, we had the soft light coming up from the floor and the hard light coming down from above. It really gave it a sharper look, and I thought it defined the building more architecturally."

The film's opening required another spectacular setting. The scene takes place in an ultra chic disco/restaurant/art gallery, and the search for the right location ended, interestingly enough, at an indoor swimming pool aboard the Queen Mary. "We looked all over for the proper setting, something unusual enough to adapt to our purposes that would have that deco and high tech look at the same time. The Queen Mary allowed us enough variety and enough style in its architecture to accomplish what we needed to do. The poolroom has two levels of wonderful architecture. There are beautiful hallways with stainless steel elevator doors which are part of the existing ship, and stairways with stainless steel wraparound railings, all of which we were able to use for reflections," says Poster.

The visually stunning *Someone To Watch Over Me* is an excellent forum for the talents of Steven Poster. Poster's previous credits include first unit work for *The Boy Who Could Fly, Testament,* and *Dead and Buried,* and second unit work on *Close Encounters of the Third Kind* and *Bladerunner.*

Photo by Zade Rosenthal

Gangster 30s Reprised In *The Untouchables*

Stephen H. Burum, ASC
ASC Award Nominee

Stephen H. Burum earned his ASC Award nomination for *The Untouchables,* in which the reign of the Capone mob is recreated powerfully. Suggested by the popular TV show of the Sixties, it was made on location in Chicago, where most of the story is centered, and at Great Falls, Montana, which substituted for Canada. Brian DePalma directed and the cast includes Kevin Costner as the famed G-Man Elliot Ness, Sean Connery as a tough Chicago cop, and Robert DeNiro as "Big Al." Although the story plays rather freely with history, the presentation carries conviction.

An anamorphic format was used because Burum felt it would "hold the compositional integrity better, so that when the film is projected the top and bottom of the frame is maintained, though in some theaters is slightly clipped." This extended even to the 70mm blowups that were used by some first-run houses through utilization of Technicolor's full 70AR process. Even more importantly, the wide format made it possible to frame scenes in such a way as to capture the less claustrophobic atmosphere of the Twenties. An in-depth article about *The Untouchables* appears in the July, 1987 issue of American Cinematographer.

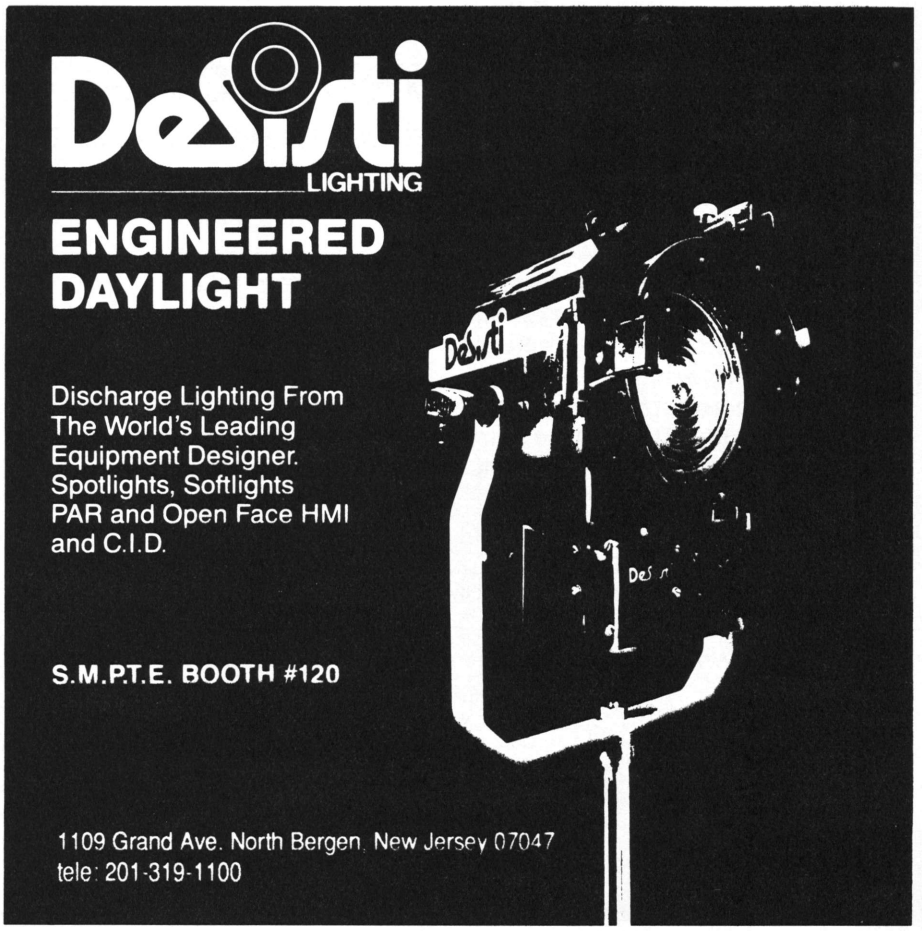
"In a simpler time, there weren't as many people and there was more space," Burum explained. "So, we tried to represent that fact in the way we framed

things. We have a lot of space around people and the shots aren't so tight. We use shorter focal length lenses." In creating compositions that captured the look of the period, he studied salon photos by Alfred Eisenstadt, Margaret Bourke-White, Alfred Stieglitz and other photojournalists. One recurring theme was the patterned repetition of shapes and tones. "We did things with short lenses, like stack black model A Fords in the repetitive images," Burum said. "In fact, we tried to have these images in most frames."

The production was storyboarded in a method peculiar to DePalma. The director and his assistants go on location and act out the script, each scene being photographed by a still camera. DePalma then uses markers to dummy in additional players and bits where necessary. Burum described these as "not beautifully drawn storyboards—if someone is happy he'll draw a 'happy face,' or a frown if they're supposed to be sad—but these storyboards show where everybody is and what the relationship is, and what coverage you're going to need physically to do the shot. It gives everybody a blueprint of what's going to happen. He'll vary from it, but the big, broad strokes are there, and we refine what the shots are."

A study of the storyboards suggested a photographic and editing style very unlike the short takes and fast cutting pioneered by Warner Bros. in their celebrated gangster films of the Thirties and reprised in *The Untouchables* on television. Camera movements, some of them strikingly unusual, dominate the style. Close-ups are used sparingly and only when they make points in characterization, never in a "talking heads" sense. Capone is introduced in a crane shot looking straight down at him, sitting in his private barber chair in opulent surroundings while giving a press conference. The camera moves in for a close-up of his smiling, friendly face as he rationalizes for the reporters his criminal activities. Burum called the crane shot a "psy-

THE BEST THAT MONEY CAN RENT.
a/t scharff rentals
FUJINON A44 x 9.5
Whether you need a Fujinon 44 x 9.5 lens, an Ikegami HL-79 EAL or a 24 track digital recorder, you'll find it at A/T Scharff Rentals.
Providing the best rental equipment, on time and meticulously maintained, is our only business... 24 hours a day.
a/t scharff rentals
(212) 582-4400
599 Eleventh Ave., NY, NY 10036


DeSisti
LIGHTING
ENGINEERED DAYLIGHT
Discharge Lighting From The World's Leading Equipment Designer. Spotlights, Softlights PAR and Open Face HMI and C.I.D.
S.M.P.T.E. BOOTH #120
1109 Grand Ave. North Bergen, New Jersey 07047
tele: 201-319-1100

61 years of quality lighting—Designers and manufacturers of specialized lighting equipment for the motion picture, television and professional photographic industries.
937 North Sycamore Avenue, Hollywood, California 90038-2384, U.S.A.
TWX 910 321-4615; cable MORINC, Hollywood; FAX (213) 851-5593
telephone (213) 851-0111

chological angle" which "gives the audience a feeling of a special point of view."

Ness, on the other hand, is introduced, back to the camera, as his wife fixes him a box lunch and sends him off to the office. The next shot is a close view of the police chief introducing Ness to the reporters, whereupon the camera dollies around to reveal Ness's features for the first time. "Because you don't see Ness's face in the first of the shot, this lends him the same kind of mythic stature that Capone has," Burum noted.

Eastman 5247 stock was used for day exteriors, with an ASA rating of 100. For interiors and nights, shot at ASA 400, 5294 negative was used. Burum employed Panavision cameras and lenses, using a slight diffusion only in the close-ups.

The Montana location was utilized for a "change of pace" sequence in which the FBI men and the Royal Canadian Mounted Police, all on horseback, ambush a convoy of Capone trucks bringing liquor into the United States across a narrow bridge. Done in the style of an old-time outdoor drama with a wealth of wild riding, gunfire and enough killings to make Sergio Leone envious, the long episode inspired Burum to utilize the north-south shooting axis technique that was used in making old-time Westerns.

According to Burum, many decisions regarding photographic technique were dictated by the performances of the actors. Watching rehearsals, therefore, is important. DeNiro, for example, needed more space because in portraying Capone he "did some very interesting things with his hands and used a lot of body language. As a cinematographer, you have to respect elements like DeNiro's use of body language and gesture, and use these elements in framing shots. If you don't do that, you're cheating the actor and you're cheating the audience. The actors and director point you to where the important elements of emphasis are and you have to recognize that emphasis." △

SUMMER WORKSHOPS

The Leading Summer School for Film and Video Professionals

One-Week Master Classes and Workshops

Film Directors Master Class
Film Directing Workshop
Acting for Directors
Film Acting Workshop
Casting for Actors & Directors
Scriptwriting Workshops
Screenwriters Master Class
Editing The Feature Film
Production Mgrs./Assistant Directors Workshop
Location Sound Recording
The Camera Workshop
Film Lighting Workshop
Camera Filters & SFX
Steadicam Workshop
Corporate Video Production
Electronic Cinematography
Video Lighting Workshop
Video Editing Workshop
TV Commercial Workshop
TV Hard News Workshop
TV News Feature Workshop

The Workshop offers 50 one- and two-week professional classes each Summer in Rockport, Maine. These are taught by the industry's leading directors, producers, cinematographers, cameraoperators, actors and technicians - many who have won Oscars. Courses run June 1 through August 15, 1988.

Write or call for your free copy of our 40-page catalogue

The International
Film & Television
WORKSHOPS
Rockport, Maine 04856 (207) 236-8581

These programs supported by **ARRIFLEX**, **KODAK**, **Panavision** - Additional support from Cinema Products, ROSCO, Tiffen, OSRAM, Lowel, Matthews, Sachtler, O'Connor, and Panther

“I have been filming in the Super 8 format since 1972, and at this date I have produced over 50 films . . . Super 8 will continue to be my first choice.”

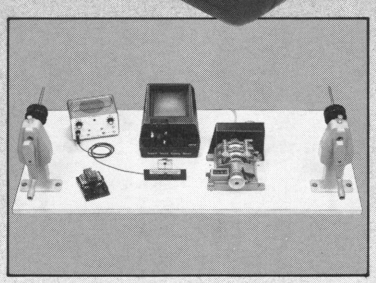
Rich Work, Workhouse Film Productions

Why his first choice? He gives several reasons, among them economy, technical capabilities, portability, and reliability under very difficult conditons. But there are many compelling reasons other producers tell us for shooting in Super 8. One of them is the availability of the new modestly priced Beaulieu 7008 Pro, heart of the SUPER8 Sync Sound System.

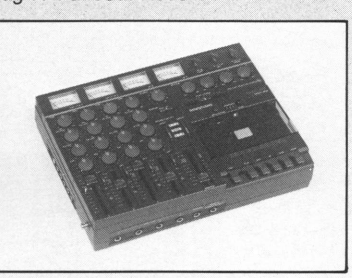
The **SUPER8 SYNC SOUND SYSTEM** is a complete production facility well within the reach of limited budgets. It includes the Beaulieu 7008 Pro with the famous Angenieux 6-90mm F1.4 macro lens; Mag IV Fullcoat Recorder; Tascam Porta One Ministudio for sound mixing and voice-overs; Super8 Sync Sound 2 Gang Editing Bench specially designed, motorized, and sprocketed for Super 8; plus a full selection of essential equipment and valuable accessories . . . Everything from tripod to projector, from microphone to battery charger.

Send for our new full-color brochure and discover for yourself the excitement of Super8 filmmaking! You'll receive detailed information on the Super8 Sync Sound System with all tech specs and prices, or call us on either coast and ask your questions.

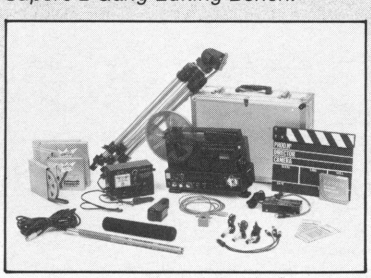
Mag IV Fullcoat Recorder



Super8 2 Gang Editing Bench.



Porta One Ministudio



Additional Production Equipment.

Super8™ SYNC SOUND SYSTEM

Super8 Sound:
95 Harvey St., Cambridge, MA 02140 (617) 876-5876
2217A West Olive Ave., Burbank, CA 91506 (818) 848-5522

ASC Honors Television Cinematographers

by David Heuring

Episodic Television Gets ASC Salute

The nominees for this year's ASC Award for a Motion Picture for Television, Regular Series, represent a wealth of talent and experience. All of the nominees seem to agree that in order to transcend the normal level of television quality, a delicate balance must be struck between the obvious constraints of TV and the demands of artistry.

L.A. Law

Reynaldo Villalobos was nominated for his work on the *L.A. Law* pilot episode. Villalobos has over twenty feature films under his belt, including *Risky Business, Blame It On Rio, Urban Cowboy,* and the forthcoming *Punchline,* starring Sally Field and Tom Hanks.

Villalobos' feature expertise came in handy on the *L.A. Law* pilot. "We tried to shoot it just like a feature," he says. "I usually shoot features, and in this case we didn't make any distinctions. We wanted it to look a little different, so I talked them into going directly from the negative to tape, like many commercials. This gave us direct control over the timing at the taping session. It worked out really well and now the show is always done that way. We used Eastman 5247 and 5294 for the interiors. Light filtration was used occasionally, and generally we just lit it and photographed it as if it was a feature."

Heart of the City

Woody Omens, ASC, talked briefly about *Heart of the City,* which, in addition to his ASC nomination, won for him a second Emmy. He has been nominated five times for the statue and won his first in 1986 for *An Early Frost.*

"The story centers around a widower, rearing two children by himself, who is also a detective on the police force. So we had two kinds of cinematography: sensitive scenes of family life, and the harshness of a detective's life at night on the streets. I used pastel colors and lit the home scenes as softly as possible. Camera moves indoors were much quieter than out on the streets, which were full of action, naturally. The colors for his police work, mostly depicted in night scenes, were gutsy with rich shadows and lively camera movement. Outside day shots were done with Eastman 5247 and interiors and night photography were done with 5294. Basically, we had two statements in the film: a quiet private life juxtaposed against the crime-filled night life of a detective.

"The director, Thomas Carter, deserves a good deal of credit, since he is the kind of man who sets the stage for a cinematographer to do his best work, despite the necessary deadlines," Omens declared.

Moonlighting

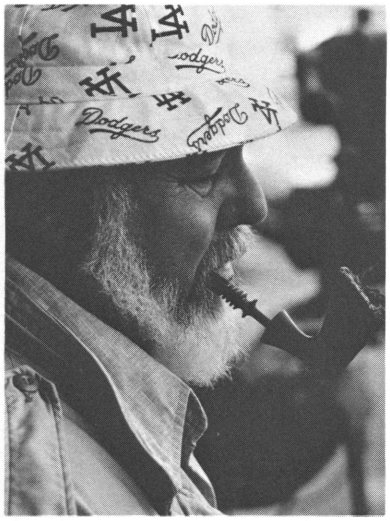
Gerald Finnerman, ASC, has been nominated for the "Blonde on Blonde" episode of *Moonlighting,* now in its fourth season. Finnerman has won Emmy nominations for his work on *Star Trek, Kojak, The Gangster Chronicles, From Here To Eternity* and *Moonlighting,* and won an Emmy for *Ziegfeld* in 1977. From the beginning, *Moonlighting* has been dependent upon Finnerman for its distinctively glamorous look.

"To achieve this I've gone back to the black and white style of the 1940s, which I learned from my father and other old-time cinematographers I worked for in the past, especially Harry Stradling Sr., Joseph Ruttenberg and Burnett Guffey," Finnerman explains. "I use cross-lighting, keep the camera moving and never use a zoom lens. Much of the show's look derives from the Zeiss high speed lenses and from the cooperation of Deluxe Laboratories. For the numerous night shots on Hollywood Blvd. in 'Blonde on Blonde' we were working at 3, 4 and 5 footcandles with 5294 stock rated at 800 to 1000 ASA!"

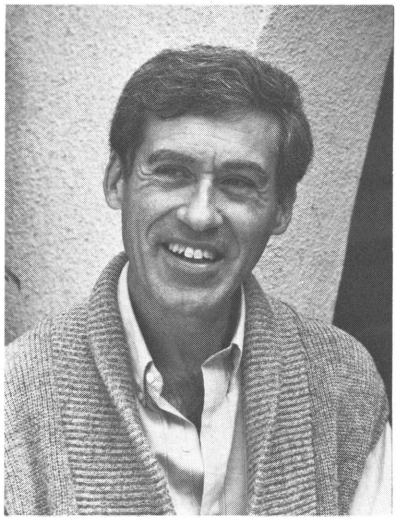
Finnerman avers that his first duty is to make the stars, Cybill Shepherd and Bruce Willis, look consistently good at all times. "I vary the diffusion to keep Miss Shepherd looking as fresh and glamorous late in the day as at the first. I had a sliding diffusion filter made up for this, as well as split diffusion for two-shots with, say, a Mitchell C on one side and an A or B diffusion on the other. I use some sets, such as ring diffusion, that go back to the Forties to do things they don't do anymore."

Finnerman revealed that he uses gels with the backlighting "to keep the lady's hair looking honey-colored instead of going white."

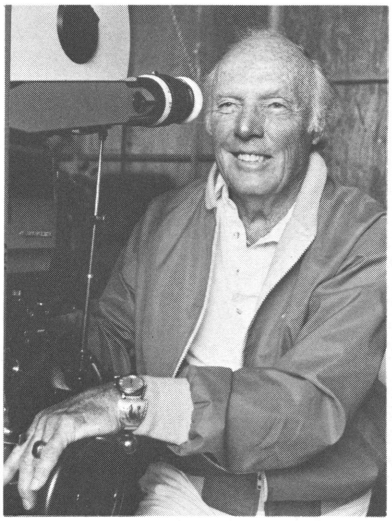
"In a way, *Moonlighting* reminds me of *Star Trek,*" says Finnerman. "Viewers are fiercely loyal. Working on this show is like belonging to a special club. I look forward to coming to work every day. I feel that we have done something special – the cast and crew are very much a family."



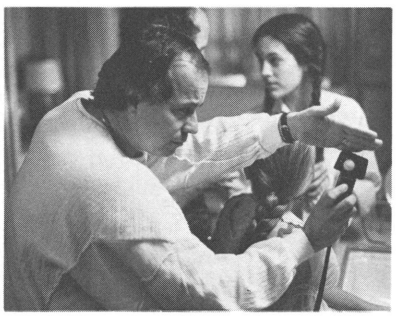
Finnerman



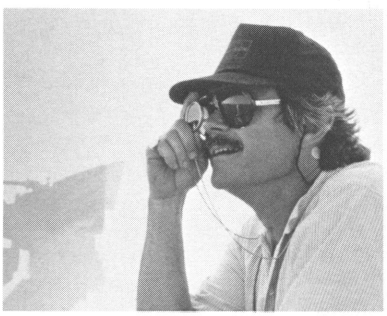
Omens



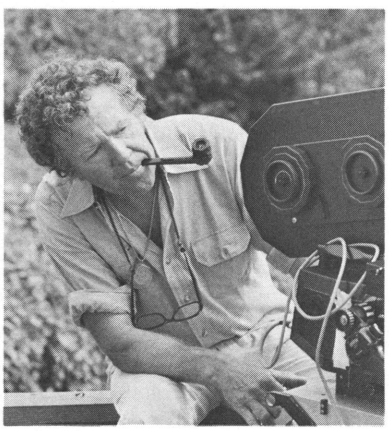
Rawlings



Villalobos



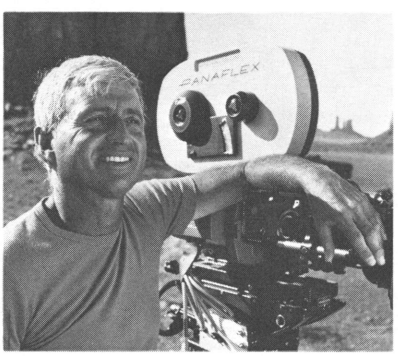
McPherson



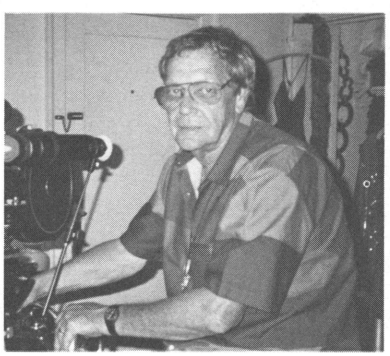
Rescher

Lathrop

Crabe



Kemper



Priestley

Pacific Title & Art Studio
EST. 1919

RECOGNIZED, FOR OVER 65 YEARS, AS THE STANDARD OF EXCELLENCE FOR MOTION PICTURE AND TELEVISION TITLES AND OPTICAL EFFECTS

213·464·0121

Scarecrow & Mrs. King

Richard L. Rawlings, ASC, was nominated for his work on the *Scarecrow and Mrs. King* episode entitled "Unfinished Business." A two-time Emmy nominee for his efforts on *Dynasty* and *The Colbys*, Rawlings is especially gratified by this nomination. "The recognition of one's peers is a special honor," says Rawlings. "The producers gave me free rein for this episode, and I'm proud that this added decision-making power helped lead to that recognition."

In the "Unfinished Business" episode, one of the characters recalls his childhood days in an effort to reconstruct the questionable circumstances surrounding his parents' death. This gave Rawlings the opportunity to depict World War II London, as seen through the eyes of a child. "We wanted to make a visual distinction between the time periods," says Rawlings. "Most film from this time period is black and white, so we shot with a dark blue filter to give the scenes the monochromatic feeling of that era. On some of the night scenes, we used a Vaseline star filter, which was my touch.

"The episode really gave me something to sink my teeth into," says Rawlings. "It was a pleasant change from the ordinary grind of episodic television production. Kate Jackson directed the episode and we worked exceptionally well together."

Amazing Stories

John McPherson, ASC, was nominated for his cinematography for the "Go To the Head of the Class" episode of *Amazing Stories*. He has had two previous Emmy nominations. His television credits include such disparate works as *Kojak, Hogan's Heroes, The Incredible Hulk,* and a variety of specials including *The Mission,* which captured an Emmy for McPherson. His work for the big screen includes *And Justice For All, Summer of '69, Jaws IV* and the forthcoming *Short Circuit II.*

The "Go To the Head of the Class" episode of *Amazing Stories* is a personal favorite, McPherson says, because "I enjoy being challenged by a director who wants a first class product. Steven Spielberg, the producer, gave the project to Robert Zemeckis, who made features like *Romancing the Stone* and *Back To the Future,* but who had never directed TV. He was always thoroughly prepared so we could function quickly, yet with artistry, and he was really supportive, giving me a lot of freedom and never losing his cool despite the unaccustomed constraints of budget and time. This unbridles the cinematographer's imagination and permits us to achieve some unusual effects that are not often practical in TV production."

The eerie episode, which is both amusing and hackle-raising, features Christopher Lloyd as an eccentric school teacher who catches a boy and girl cheating on a test. There is a graveyard sequence in which the brats visit the teacher's family crypt in order to steal a finger from one of his mummified forebears.

To put this wild tale on film with all the trimmings it deserved meant having to capture a great deal of atmosphere – lightning, rain, wind, fog and unusual lighting effects. "I tried to make it really moody but keep the lighting in the realm of believability and in accordance with the needs of the story," McPherson recalls.

"When you tackle a project like this, you have to look at the entire situation," McPherson believes. "You have X amount of days and a feature director wanting feature quality. When a director wants something very nice but is working under budgetary restraints, I'm definitely on his side. Ordinarily there would be at least four times as many days in which to do it – maybe even 70 or 80 days versus six or seven. When the dailies are screened, the cinematographer knows it had better look like a feature in the making, yet the visual style has to accommodate the time and budgetary pressures. Fortunately, I had the kind of crew that makes it possible."

Miniseries, Specials Named in ASC Awards

The nominees for this year's ASC awards in the category of Motion Picture for Television Miniseries or Special are all ASC members, and the similarities among the nominees do not stop there. In each case, the cinematographer began with an interesting story and used his unique talents to create a television show of superior quality.

Christmas Snow

Philip Lathrop, ASC, received his nomination for the photography on *Christmas Snow.* Lathrop says that he and director Gus Triconis strove for a "warm Norman Rockwell" look for the scenes of a mother and children facing a bleak Christmas. "I know that sounds corny, but it is true," Lathrop said, adding that "extreme time limitations made it more difficult to achieve our 'look' than usual on television shoots. We had only ten days for completion."

The picture was photographed in Vancouver, Canada in October. Since much of the story hinged on the fact that the children wanted to see snow for Christmas, a lot of snow had to be manufactured for several large scenes. "The weather was our ally," Lathrop asserted. "For all the days we worked outside, it was overcast, which gave us exactly the right lighting.

"We used Panavision equipment, and chose Eastman 5294 for our interiors and 5247 for exteriors. Working with Triconis is a pleasure. He lets me know what he wants and asks 'can you do this?,' and we go from there."

Lathrop has received Emmy nominations four years in a row and has won the award twice.

When the Bough Breaks

James Crabe, ASC, received his second ASC nomination in as many years for his work on *When the Bough Breaks.* His film career spans 30 years and includes credits on such films as *Rocky* and *The China Syndrome.* Last year Crabe's work earned him an ASC nomination for *Karate Kid II.* His numerous awards include two Cleos, two Emmys, and a 1980 Oscar nomination for his photography on *The Formula.*

When the Bough Breaks is a television special about a group of prominent citizens engaged in the abuse of children. The police investigation is hampered by the fact that the only witness able to incriminate the powerful villains is a young child. Ted Danson plays a retired psychiatrist who is persuaded to work with the child in an attempt to break up the illicit ring. The challenge for Crabe was to maintain a consistency of look throughout a wide range of shooting situations. Crabe partially credits the success of *When the Bough Breaks* to his great working relationship with director Glen Jordan.

Kojak: The Price of Justice

Victor Kemper, ASC, received a nomination for his work on *Kojak: The Price Of Justice,* which also earned him an Emmy nomination. Kemper's credits include *Dog Day Afternoon, Hospital, Clue,* and the forthcoming *Hot to Trot.*

"We treated it as if it was a theatrical feature," recalls Kemper. "I wanted to use considerably less fill than the normal television fare. I tried to compromise between what I knew the TV system needed to hold an image and what I knew the film could handle. I performed several experiments with the ratio until I felt we had dynamite pictures with good blacks."

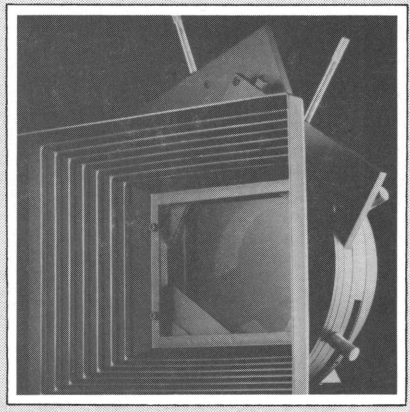
Kojak: The Price of Justice is the grisly story of a woman accused of murdering her two children and disposing of them in a river. The filming was done entirely on practical locations in New York City.

"Abby Mann did a great job taking an outlandish twin murder story and making an interesting mystery out of it. The locations helped us set the mood. The speed with which we made this film made it challenging to keep the mood. Working within that type of time frame doesn't allow for the usual attention to details. We worked as quickly and as carefully

GET THE GOOD STUFF BACK

You're shooting mostly tape these days. You don't wait for dailies any more. You don't worry about negative scratches, hairs in the gate, or sending collapsible cores to the lab.

Yet, you miss having tools that help you create a really superb image: A top notch matte box system, for example. **Now you can get the good stuff back.**



The Geocam 4*4 Universal Production Matte Box may be the most versatile matte box you've ever used. It adjusts to fit whatever camera the job calls for, including most ENG, EFP and 16mm cameras. No special brackets required. It offers filter movements of unprecedented flexibility, and modular construction. The unique filter holders permit filter mounting with no finger prints. Really!

To learn more about the 4*4 Universal Production Matte Box and other good stuff, contact Roger Salles at Geocam (201) 672-2223.

GEOCAM CORP.
P.O. BOX 704 • ORANGE, N.J. 07050
(201) 672-2223

See Us At NAB Booth 3174

DELTA DOLLY

A COMPACT ALL TERRAIN PEDESTAL DESIGNED TO EASILY TRANSPORT AND SUPPORT YOUR CAMERA ON LOCATION.

EGRIPMENT CAMERA SUPPORT SYSTEMS. THE WORLD'S STANDARD.

EGRIPMENT USA/L.A.
7240 VALJEAN AVENUE VAN NUYS,
CALIFORNIA 91406, USA
PHONE: (818)-989-5222, FAX: (818) 994-8405

EGRIPMENT
MACHINEWEG 22, PHONE (2945)-3988
1394 AV NEDERHORST DEN BERG, HOLLAND
TELEX: 10254 GRIMA NL. FAX: (2945)-4658

egripment

as possible," Kemper says.

Kemper and the other nominees were obviously able to overcome the difficulties of television filmmaking, for the results of their work have been recognized by their peers as a cut above the rest.

Promise

Gayne Rescher, ASC, received his nomination for the photography of *Promise*. Rescher's work on *Promise* has already earned him an Emmy. His previous awards include a 1984 Emmy nomination for *The Day After*.

Starring James Garner and James Woods, *Promise* tells the fascinating story of a man reunited with his schizophrenic brother by the death of their mother. Woods received an Emmy nomination for his superb portrayal of the disturbed brother. The brothers' reunion and journey through the scenes of their childhood provided Rescher with many cinematographic challenges, including some particularly interesting scenes filmed at an abandoned lakeside house. The house was a boyhood playground for the brothers, and their return reminds them of the "normal" brother's faintheartedness in daring childhood escapades. The beautiful foggy scenes at the lake and stunning night shots helped to make *Promise* superior quality television.

Rage of Angels, Part II

Jack Priestley, ASC, was nominated for an award for his cinematography on *Rage of Angels, Part II*. Priestley is a three time Emmy nominee and has won the statue twice. He is currently filming *Cagney and Lacey*.

Rage of Angels, Part II continues the story of a woman in love with the vice president of the United States. In *Part II*, the V.P. is now a prominent lawyer, played by Ken Howard. The film also stars Jaclyn Smith and Angela Lansbury, and was shot entirely on practical location in Long Island and New York

Handsome Binders for your magazines

$8.95 each

Add $3.00 per binder for postage in United States; $4.50 for all foreign orders. California residents add 58 cents state tax. U.S. funds only.

Please send _____ binder(s) to the address below:

Name _____

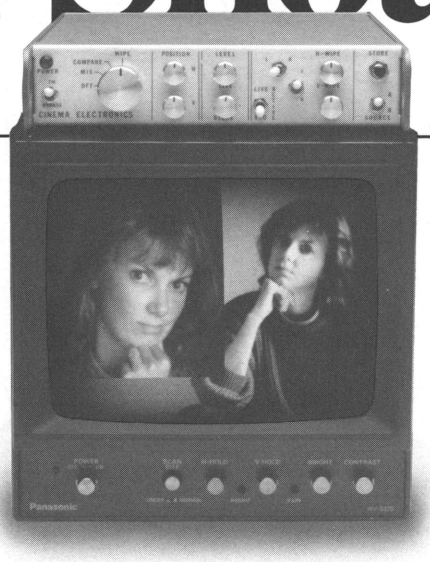
Street _____

City _____ State _____ Zip _____

American Cinematographer

P.O. Box 2230 Hollywood, CA. 90078

Effect Your Video Assist With Shot Box™.



More Productivity.

Expand your video assist's production value. Shot Box lets you creatively explore the broadest range of cinematic possibilities.

Preview Effects.

Shot Box's **Mix** function **superimposes** the contents of the frame store with a live video image. So you can store the image of your background matte and superimpose the live action. Then mix the image in an instant to view the scene, days before it could get through opticals!

And the compact Shot Box features a convenient **Split Screen/Wipe** facility. The intelligently designed controls let you select a variety of different wipe patterns instantly—horizontal, vertical, or both simultaneously.

The Shot Box's advanced **Compare mode** performs detailed registration to recreate a scene set-up quickly, effortlessly, and perfectly...every time.

To **simulate a traveling matte**, Shot Box mixes two moving images together.

Imagine the applications for commercials, music videos, TV, features, animation, miniatures, motion control, title sequences—wherever a shot calls for visual effects.

Call Cinema Electronics Toll Free at: 1-800-MR. VIDEO

Cinema Electronics
Hermosa Beach, California
(213) 376-0403 FAX (213) 372-6765
Telex 650 310 7421

More Features.

- Frame Synchronizer.
- Ultra-high Resolution Frame Store (stores up to two images).
- Multi-Mode Switcher.
- Horizontal and Vertical Positioning Controls.
- Dual Output Distribution Amplifier.
- Front Panel Controlled A/B Input Selection.
- Frame-store Backup Battery.
- 12V DC 500mA operation.
- Low Power Indicator.
- Dual Standard Compatibility—RS-170 and CCIR.
- Works with all video recorders, including ½" VHS and Beta.

Instant Set-Up, Easy Handling, & No More Cable Frenzy!

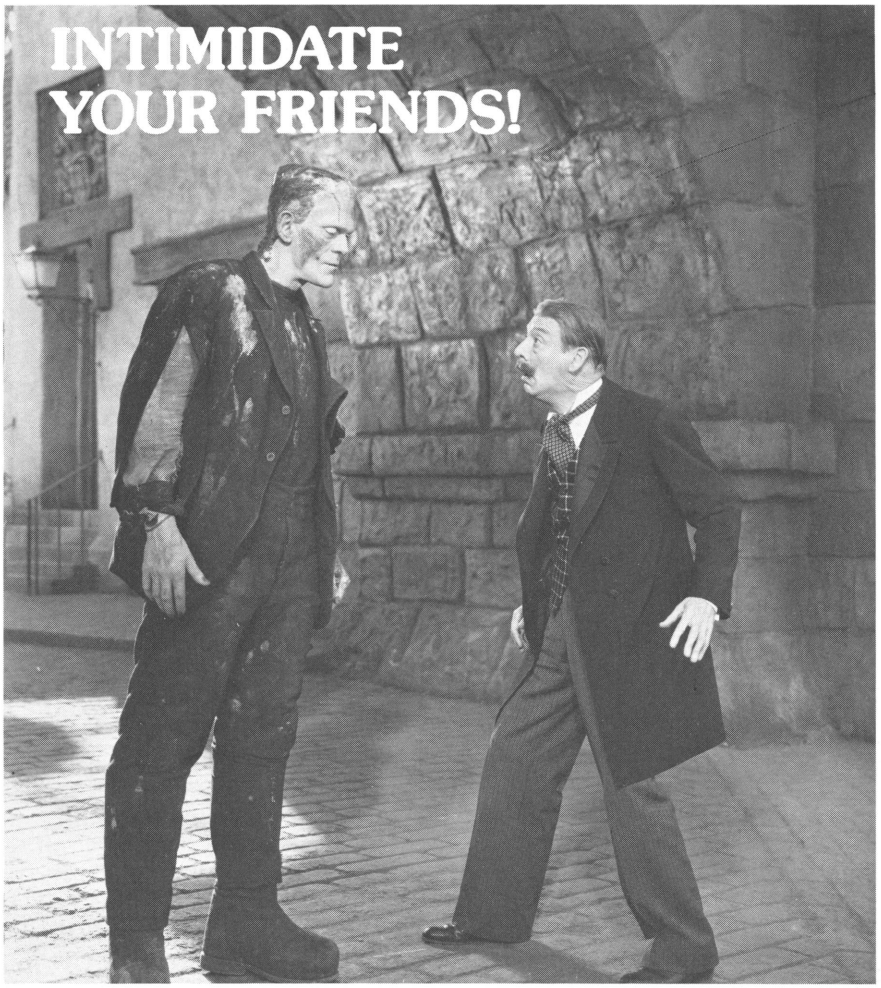
Shot Box is packed full of functions previously available only with a jumble of complicated, electronic componentry and a snarl of cables. Cinema Electronics has simplified it into one ready-to-go three pound box. What's more, Shot Box will run for over 14 hours on a single 12 volt camera battery.

So, why limit your video assist to the ordinary? With Shot Box you bring expanded creative production capabilities to the set.

Cinema Electronics' products are available from:

LOS ANGELES	NEW YORK	LONDON	PARIS	VANCOUVER
Clairmont Camera (818) 761-4440	Camera Service Center (212) 757-0906	Video & Film Co. 01-267-5111	Samuelson ALGA Cinema 1-43-28-58-30	Clairmont Camera (604) 984-4563
SEATTLE	**DALLAS**	**CHICAGO**	**ATLANTA**	**DETROIT**
Oppenheimer Camera (206) 467-8666	Victor Duncan, Inc. (214) 869-0200	Victor Duncan, Inc. (312) 943-7300	Victor Duncan, Inc. (404) 355-3001	Victor Duncan, Inc. (313) 471-1600

And Panavision agents worldwide.



Be wise, informed, knowledgeable, aware, alert, and just plain smart!

SUBSCRIBE NOW TO . . .

American **Cinematographer**

P.O. Box 2230, Hollywood, CA 90078

12 issues $17.95 (regularly $22)

Foreign subcribers add **$15 per year;** Canada & Mexico, **$6 per year. Payment must accompay order in U. S. currency only.**

Name (please print)

Occupation

Address

City State Zip

❑ Check enclosed ❑ Charge my Visa ❑ Mastercard

Card# Exp. Date

Sign

Allow 6-8 weeks delivery.

City. Original plans for a three week shoot in Europe had to be scrapped due to the threat of terrorism.

"One of the challenges on the show was to give the scenes shot in New York a European feeling," Priestley says. "We really had to scramble to make Long Island look like Italy. We did some rear screen stuff with Jaclyn and sent a crew overseas for establishing shots. To get that Italian look, I used a lot of Superfrost and fog filters, Mitchell AV-B, C, and D's, and diffusion. Jaclyn is a very pretty woman, of course, so it's easy to make her look good. I remember it as being a good show, and I'm very pleased to get this nomination." △

Special Effects in '87

Our December, 1987 issue covers in detail:

- **Superman IV**
- **Spaceballs**
- **Monster Squad**
- **Running Man**
- **Star Trek's New *Enterprise***
- **The Living Dead**
- **Creepazoid**
- **Predator**

Send $5.50 to:
American **Cinematographer**
Back Issues
P. O. Box 2230
Hollywood, CA 90078

It's a Jungle out there...

Once upon a time, lighting was easy. In the days of black and white all you needed to worry about was whether you had enough light to shoot. Even in the early days of color, the lighting was either incandescent or daylight, and Kelvin was easily controlled with a few amber or blue gels.

Then suddenly, a whole new generation of efficient new lights appeared. Every location had its own brand of lighting monsters. From energy-efficient fluorescent lights in office buildings, to various breeds of discharge lamps lighting streets and shopping malls. They created a new set of problems for the cinematographer and gaffer.

Just measuring Kelvin is no longer enough. Now you need a little more information to handle the Mired Shift from amber to blue and the Color Compensation to adjust the green. That's why Rosco has published a new "Lighting In The Jungle" Handbook, chock-full of useful data and the Rosco "Jungle Book" swatchbook for location lighting. Both are yours free for the asking. Be sure they're handy before your next encounter with the lighting monsters.

rosco

36 Bush Avenue, Port Chester, New York 10573—(914) 937-1300 Telex: 131472
1135 North Highland Avenue, Hollywood, California 90038 (213) 462-2233
1271 Denison Street #66, Markham, Ontario, Canada L3R4B5 (416) 475-1400
Also in London, Madrid and Tokyo.

Photos by Jane O'Neal

Eccentric Is the Word for *Beetlejuice*

Produced by Michael Bender, Larry Wilson and Richard Hashimoto
Directed by Tim Burton
Tom Ackerman, director of photography

by George Turner

"It is the same quirky film that I read in the script and it has been rendered as such, which I think is a bold stroke," Tom Ackerman enthused. "Movies should be done that way. A movie has to know what it is from the 'get-go' and the director – in our case Tim Burton – has to steer it so that it is the movie that it started out to be. To try to change horses in mid-stream is usually the kiss of death. It's important to accept the movie for what it is."

The movie in question is *Beetlejuice*, to which the often misused term "different" can be applied without apology. Ackerman, as director of photography, was quick to realize that the photographic treatment would of necessity lie outside the mainstream. Ackerman – who began his cinematography career shooting commercials in 1973 and has since worked on *Back To School*, *Girls Just Want To Have Fun*, *Road House '66*, and *Frankenweenie* – is energetic,

youthful, and takes his work seriously.

"There are things that seemed fairly bizarre when I first read the script and they remain so," he said. "After you have worked on a film for awhile you lose all your objectivity unless it is something very *genre* or very predictable. Going in, I knew it was going to pose some interesting challenges and it never disappointed me in that regard.

"It is not a horror film, but certainly has some comedic overtones. It's a fable – a ghost story, in fact – yet there's some very funny stuff in it. It has a lot of wit and great irony, with characters that are very strongly etched, but it's not a slice of life by any means."

The story tells of Adam and Barbara Maitland (Alec Baldwin and Geena Davis), a young married couple who lead a quiet existence in their comfortable, rambling Victorian home in Winter River, Connecticut. Actually, they haunt the place, having passed over into the after-life. Enter Charles and Delia Deetz (Jeffrey Jones and Catherine O'Hara), a very upscale New York City couple who, with their cool and sullen daughter Lydia (Winona Ryder), decide to move to the country to calm Charles' jangled nerves. The Deets' purchase the Maitland home, completely unaware of its present occupants. When they move in, there is a resounding clash of their distinctly urban tastes versus the conservative ideas of the Maitlands as the latter try to save their home from the "artistic" gaucheries of Delia. The ghoulish-looking Beetlejuice (Michael Keaton), who haunts a graveyard in a miniature town that is part of an HO gauge model railroad in the attic, is drawn into the battle with weird but comic results.

Ackerman recalled that he was slated initially for four weeks of pre-production preparation. This stretched to seven weeks because of some casting delays. "It was a good break for me, because of the complexity of the film," Ackerman noted. "All our stage shooting was done at Culver City Studios, and we did all the location work in Vermont. Of the entire schedule, all but seven days were shot on stage.

"Tim Burton, the director, was adamant that he did not want a 'shafts of light' look that by now has been exploited in so many movies dealing with the supernatural. In this case we decided to forego the kind of automatic response this effect signifies.

Ackerman described the keys to the overall look of the film as "directness, clarity and simplicity. The color palette was deliberately limited and carefully chosen. By and large, we kept the lens free of significant amounts of diffusion or image-altering filtration. I always tend to use some lower end double fogs to govern contrast. In terms of the lighting, I worked with very bold strokes. Tim was happiest when we were working in a very rich, contrasty manner. In terms of the overall palette of the scenic design, set dressings and wardrobe, black emerged as one of the most important values we had to achieve."

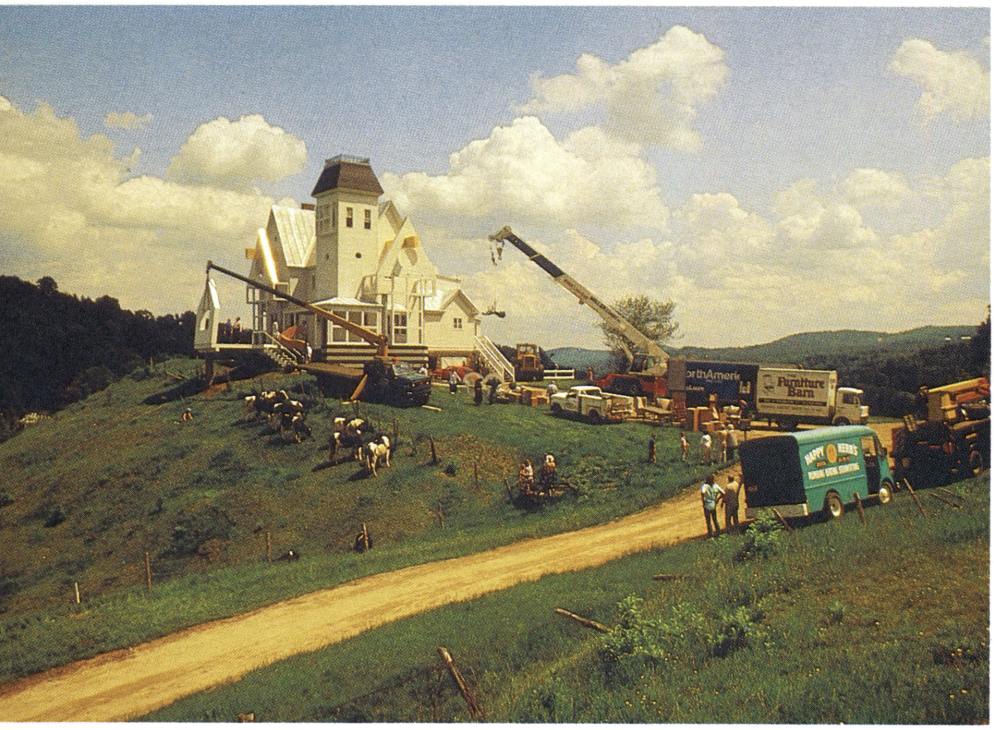
Some of the strangest scenes occur in a modern visualization of purgatory, as created by production designer Bo Welch, who received an Academy Award for his art direction of *The Color Purple* and more recently designed the off-beat *Lost Boys*. Ackerman's description of the setting is eloquent:

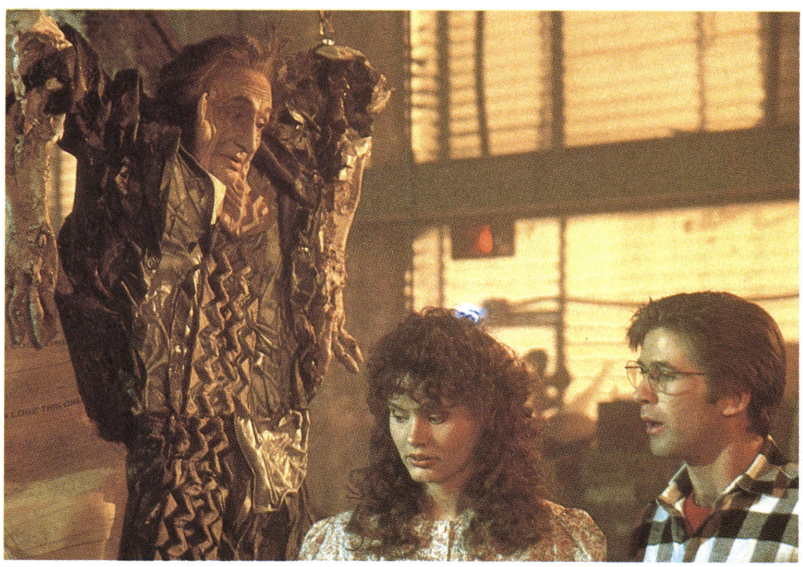
"If you envision purgatory as being a never ending visit to the department of motor vehicles to renew your license, it gives you some idea of what we were going for! It was not intended to be scary except in unconventional ways. The main set in the afterlife is a vast secretarial pool where the desks go on and on, into the deep background, lost in a sea of computer printout paper and other kind of flotsam. Corpses are shown being being conveyed through the secretarial complex by means of overhead pulley systems. Basically, this is the place where the newly dead go for their assignments to resolve whatever they left unresolved at the time of their demise.

"How does one go about fashioning the look for this kind of thing? Our choice was to make it drab and institutional. The two colors that predominate in this part of the afterlife are a rather sickly green and yellow as seen through a corrugated plastic patio roof. We went for the unappetizing rather than the frightful."

All the major sets for the picture, except for the afterlife set, are contained in one house. There is a sizeable stairwell where a bannister transforms into a snake. "When the house is cut apart into all its components, none of the parts, except for the stairwell, is very large in scope," Ackerman said. "In a conventional ghost movie you think

Opposite page: ***Graveyard scene from Beetlejuice, a film which must be seen to be understood.*** **Left:** ***Beetlejuice (Betelgeuse), played by Michael Keaton, lives in the cemetery of a miniature railroad town.***





Above: ***The Victorian house exterior under construction in Vermont.*** **Right:** ***Geena Davis and Alec Baldwin meet one of their fellow voyagers—designed by Robert Short Productions—in the afterlife.***

of a story unfolding in a huge country mansion with vaulted ceilings, and vast rooms, but this house was small and, by design, claustrophobic. Actually, it was somewhat more cramped than we would have liked. If it had been just live action talk scenes that would be one thing, but with mechanical effects and cable work, it becomes quite a Magilla. And I don't think there was a single square inch that we didn't exploit.

"The house – this character we are talking about – is, in the beginning of the film, everyone's image of *Better Homes and Gardens*, a New England country house being lovingly restored by the occupants, a couple so square that the gifts they are exchange are rolls of wallpaper and a can of tung oil. Eventually it traps them and is sold out from under them to New York sophisticates who proceed to turn it into a kind of a New Age bunker. They gut the place and turn it into a monstrosity about as far as you can get from the colonial home esthetic.

The cinematographer emphasized that bad taste is hard to create. "It had to be credible," he explained. "You had to believe. It had to be the hippest of the hip, so rapacious and cold that it is almost funny with its perverted images of natural shapes. Bo did a great job walking this line.

"Most of the film takes place in the house. All the scenes filmed in Vermont were exteriors in the village. We also did one day of aerial work using a Wescam mount. This is a gyro-stabilized camera mount which I had never used before. It seemed to me that it did things we always dreamed of doing and hoped could be done when helicopter photography first became practical with Tyler and Continental mounts, which are fine pieces of equipment. The Wescam enables you to operate smoothly at virtually any focal length and allows you to function in a wider variety of weather conditions, such as lumpy air that might otherwise spoil a shot. These introductory shots reveal a quaint New England town nestled in beautiful valley. We hovered with a 250mm zoom for a binocular point of view that was as steady as if we had erected scaffolding a thousand feet high."

The house itself was not an existing structure but a set constructed for the picture. "They built a three and a half sided shell of the house," Ackerman recalled. "The house was as much a character in the film as any of the other actors. It was built overlooking the town, a classic case of carrying coals to Newcastle in that we were in this little village – White River Junction. It was perfect in every respect – it looked great. In fact, it has been on many a New England calendar. The only thing missing was a red covered bridge; so Hollywood brought the red covered bridge. In fact, the townsfolk were so enamored of it that they wanted to keep it, but for insurance purposes that was not possible and it had to be torn down. This was the extent of our exteriors. Very little of the film occurs outside."

Panaflex cameras equipped with Zeiss prime lenses were used throughout. These lenses provided excellent contrast and resolution, according to Ackerman. "Initially we were shooting all interiors on 5247 (Eastman) in order to ensure the best quality for later optical work. This meant working with heftier light levels than I had used in some time. Fortunately, two weeks into the photography, we switched to Eastman's new 5295 emulsion (ASA 400), which they kindly provided to us in a large quantity as a trade test for their new product. Prior to that it was being used only for special effects.

"We had wanted 5295 to begin with, but since it was only available in limited quantities, we held little hope of getting enough for a feature. I had tested it and thought it was terrific. As luck would have it, Eastman chose two films for the trade tests for general cinematography; one was *Tucker* and the other was *Beetlejuice.* Our experience with it was very good. Initially, we planned to do our interiors on 5294, which is a very fine film. However, early on, we decided to do the entire film on 5247 for the reason that if live action would have to be optically sweetened later on, we would need the reliability of 5247. The 5294 emulsion tended not to hold up in all the intermediate steps in the optical process. However, when 5295 became available to us, we were delighted because here we had ASA 400, a very wide latitude, excellent color fidelity, and T-grain emulsion, which makes the acutance of the emulsion almost indistinguishable from 47. Last, but not least, it gives excellent blue/green separation, which makes for very good compositing. It also helped yield rich blacks, which were important to maintain in our film."

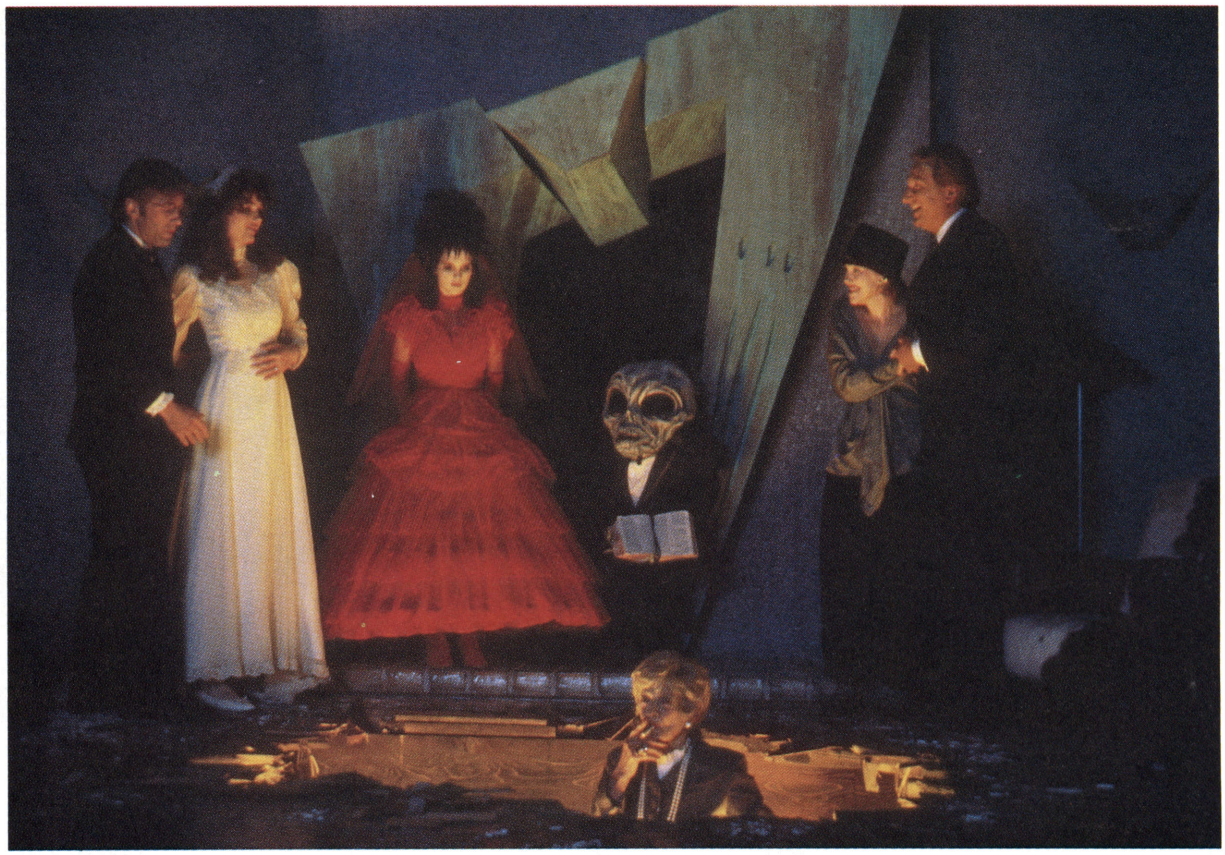
The fact that much of the picture supposedly happens in a tiny HO gauge model railroad town did not pose as much of a problem as might be expected. As Ackerman commented:

"Light is light, and it's a fact that if you were to photograph a miniature you would try to light it in a realistic way, so that there is the 'reality' of light. Then there is the light that it absorbs from the room around it, which is much more surreal. Basically, when we are inside the town, we see the facades of the buildings lit as if from an unseen moon – as if there were moonlight streaming into the attic. The only model-like touch might be the fact that if you look carefully you'll see that the windows of the houses have no details. We just put tracing paper on them and lit them from within. In the cemetery, there was no light source to speak of except for a yellow glow that comes from a rather tacky Beetlejuice retail sign located next to his grave.

Beetlejuice himself provided some lighting questions in that he is seen in a horrific makeup, yet is not actually a horror character. Extensive tests were done on the makeup, wardrobe and lighting of the character, as played by Michael Keaton. Ackerman described the character as "not completely despicable, but a kind of

Above: ***Winona Ryder, in black wig, black hat and black dress, reading a black book and photographed in a near-black setting—a cinematographer's headache.*** **Left:** ***Ackerman takes a reading in the attic set. The miniature railroad town is in the foreground.***

Above: ***Baldwin, Davis, Ryder, a grotesque parson, Catherine O'Hara and Jeffrey Jones gather for a wedding as Sylvia Sidney emerges from the floor.***
Below: ***Beetlejuice's behavior at the ceremony adds nothing to his charm.***



scoundrel. He wants to come over to the real world and is trying to find his ticket out." The only way he can achieve this is if a certain incantation is uttered.

"The final patina for his makeup was very pale with just a tinge of green mold here and there, a sort of fright wig look to the hair – Harpo Marx with a zillion volts pumping through – plus an unseemly stubble of beard," is how Ackerman described his star. "He's like *Miami Vice* with a few centuries of mold mixed in. His wardrobe lies somewhere between lounge lizard and Boris Karloff. We shot Beetlejuice much like any other principal appearing in the same scene.

"Most of his scenes are low key, rather sketchy, stark. There is a matter-of-factness to some of the scenes with Beetlejuice which arises from the way the scenes were written and conceived and put together which suggested that we not go overboard on what I would call classic horror film lighting. In fact, the sub-text was not horror but irony. So there were times when we did resort to the ghost movie idiom and borrow from that, but other times we referred to Beetlejuice very matter-of factly. Here is a guy several centuries old, his pockets bulging with every kind of serpent and cockroach that might co-habit the underground, and he's walking around in your living room – so where do you go with that, visually? Sometimes it's more interesting to play against type – or, in this case, light against type.

"Beetlejuice is not the only weird character in the movie," Ackerman pointed out. "He has a supporting cast of some of the most bizarre characters to hit the silver screen in some time. When I read

FGV Lightweight Dolly

Now in the U.S.!

All possibilities

FGV Kombi Wagen with
FGV Lightweight Jib

for moving your

FGV Mini Panther

camera, start ing

with $ 2,460.- for

FGV Super Panther

FGV Super Panther with
Super Jib Arm

SALE

by

FGV PANTHER® **Corporation of America**

3360 Adina Dr., Los Angeles, CA 90068, Phone (213) 850-0246

See us at NAB Booth 5927

Above: ***Ryder coolly slides up the bannister.*** **Right:** ***To Baldwin's discomfiture, the Charman (Douglas Turner) can't stop smoking in the afterlife even after being burnt to a crisp in real life.***

the script I found it difficult to conceive of what a scene would look like when you've got two newly deceased people gaining entrance to the after life, walking through a fireplace in their attic through an imaginary door to a green void into a waiting room inhabited by other dead people who are not as cosmetic as our regular folks. Many characters are the product of innovative puppetry, such as 'Char Man,' who is burnt to a crisp but continues to puff away at his chain smoking habit, and the former magician's aide who sits with one half of her body on one chair and the upper torso on another."

The village model had to be HO scale because anything larger would not fit in the attic of the house, as the story calls for. There were three life size replications in which the live action was done: the graveyard, the main street and Dante's Inferno.

"On the main street Bo Welch created some very fine forced perspective which pretty much dictates where the camera lens must go," Ackerman revealed. "The production design philosophy in marrying up the full-scale miniature with the reality was that less would have to be more. The budget constraints were such that there had to be limitations on special effects. The graveyard and main street sets were played in limbo instead of using process photography to establish the 'attic' background. The thought was to just be bold; do it – maybe not dot every I or cross every T – and render it in a simpler way.

"We tried to make the attic sequences that were integrated in sort of a sketchy way, so that the eye would not be drawn to detail and when you're in the model you are not begging to see detail."

The new wave lighting fixtures throughout the house were properly eccentric, but could not be utilized as practical sources. Ackerman cited "a piece of sculpture with a little, glowing ping-pong ball on the end of it. It looks great, but as a practical, it was impossible. And we had a black lamp structure against the black leather furniture which could never be used for real light. We had to be clever in how we hid our lamps in order to generate enough lighting for the filming. Sometimes it had to come from an unseen source. We tried to vary the lighting because, since we were working in limited geography, the only way to communicate day or night or mood was with the sculpting of the light. We played a very wide range, working at the murkiest edge to some high key interior looks."

Ackerman was informed that one of the leading ladies would be dressed in black. Later, he discovered that her hair was black. Then the director decided she should wear a broad-brimmed black hat, asking if that would be a problem. "The coup de grace," as Ackerman recalled, "was: 'Would I mind Lydia in the black dress with the black hair and the broad-brimmed black hat with a black veil?' I was now a bit nervous; however, it still seemed like a good idea. It is easy for the cameraman to be-

Steadicam. Represented by the World's Finest Equipment Dealers.

JAPAN
Tamco 03-436-5711

KOREA
Kim T Young A-V Co.
776-1645, 778-9131, 778-9132

TAIWAN
Asia Electric Trading Co. Ltd.
(02) 522-100

SINGAPORE
Rank O'Connor's 637-944

AUSTRALIA
John Barry Group (02) 439-6955

NEW ZEALAND
Film Facilities Ltd.(09) 774-552

SOUTH AFRICA
Movievision 011-726-8217

INDIA
Prasad Prod. Put. Ltd.
420-145, 422-718

AUSTRIA
Cine-Service Gmbh (0222) 822-410

ENGLAND
Optex 01-441-2199

FRANCE
Francois Bogard (14) 556-1191

GERMANY
Alfred Chrosziel Film/Video Technik
(089) 448-0339

HOLLAND
Holland Equipment (020) 943-575

ITALY
Rigel S.P.A (06) 350-189

SWEDEN
Jarl Hofmann (01) 31-19-2115

SWITZERLAND
Schwiezer AG (01) 54 24 24

TURKEY
Nefan Ltd.(11) 601-447

CANADA
William F. White Ltd.(416) 252-7171

BRAZIL
Eurobas
021-240-3391

MEXICO
Servicios Filmicos
(905)684-3383,684-0349, 684-0259

USA

Los Angeles/Hollywood
Alan Gordon Enterprises
(213) 466-3561

Peter Waldeck Export
(213) 939-0032

Hoffman Video (213) 749-3311

New York
Camera Mart (212) 757-6977

Washington D.C. Area
Ritz Camera (301) 953-9600

Denver, Colorado
Film Video Equipment Service Co.
(303) 778-8618

STEADICAM

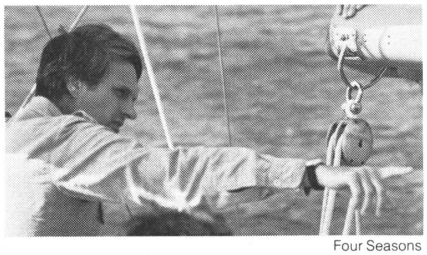
Manufactured by:

cinema products CORPORATION

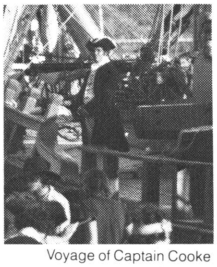
Technology In The Service Of Creativity

3211 South La Cienega Blvd, Los Angeles, California 90016-3112
Telephone: (213) 836-7991 • Fax: (213) 836-9512 • Telex: 6831828

Charlie's Angels


Four Seasons

American Sportsman


Voyage of Captain Cooke

Dreams of Gold

The Island of Dr. Moreau

We're No Virgins to Filmmaking.

DREAMS OF GOLD • MIAMI VICE • FOUR SEASONS • PETER VON SCHOLTEN • SEDUCED • TRADING PLACES • THE ISLAND OF DR. MOREAU • CHARLIE'S ANGELS • THE GREATEST AMERICAN HERO • GAVILAN • THE MAN WHO WOULD NOT DIE • LOVE BOAT • THE FRENCH ATLANTIC AFFAIR • DINAH SHORE SHOW • CODE NAME: FOXFIRE • AMERICAN SPORTSMAN • ANOTHER WORLD • VOYAGE OF CAPTAIN COOKE • ALL MY CHILDREN • GIRLS ARE FOR LOVING • THE DAVID COPPERFIELD SPECIAL • GOOD MORNING AMERICA • ANNE MURRAY CARIBBEAN CRUISE • Etc...

Contact: Win deLugo, Director or Eric Matthews, Asst. Director, Film Promotion Office, Dept. ED&A, Box 6400, St. Thomas, U.S. Virgin Islands 00801.
Direct Line (24 hours): (809) 775-1444; or call: (809) 774-8784; FAX No.: (809) 774-4390.

The U.S. Virgin Islands Film Office
Your Caribbean Answer

St. Thomas • St. John • St. Croix

Member of AFC Association of Film Commissioners

Lights to go. Bulbs to go.

Need it now? Get it now!

Come in and carry it out . . . in New York, New England, Florida, and now in D.C. too! Or phone, wire or write for **same-day shipment.** We welcome export inquiries.

- **Mole Richardson Lighting from Hollywood** (exclusive distributors for New England, New York and the South East)
- **Bulbs and Sockets** - for Television, Motion Picture and Photograph Lighting.
- Stocking Stage and Studio Specialists. **CSI/HMI, DAYMAX lamps,** 110/230 volt in stock.
- **Rosco** and **Lee** Color Media.
- **Cam-loc** connectors.

BARBIZON

New York 426 W 55 St. NY 10019 **(212) 586-1620**
New England 3 Draper St. Woburn, MA 01801 **(617) 935-3920**
Capitol 6437G Gen. Green Way, Alexandria, VA 22312 **(703) 750-3900**
South 1125 N. 53rd Ct, W. Palm Beach, FL 33407 **(305) 844-5973**
FAX: (212) 247-8818 • TELEX: 226 000 ETLXUR BARBIZON

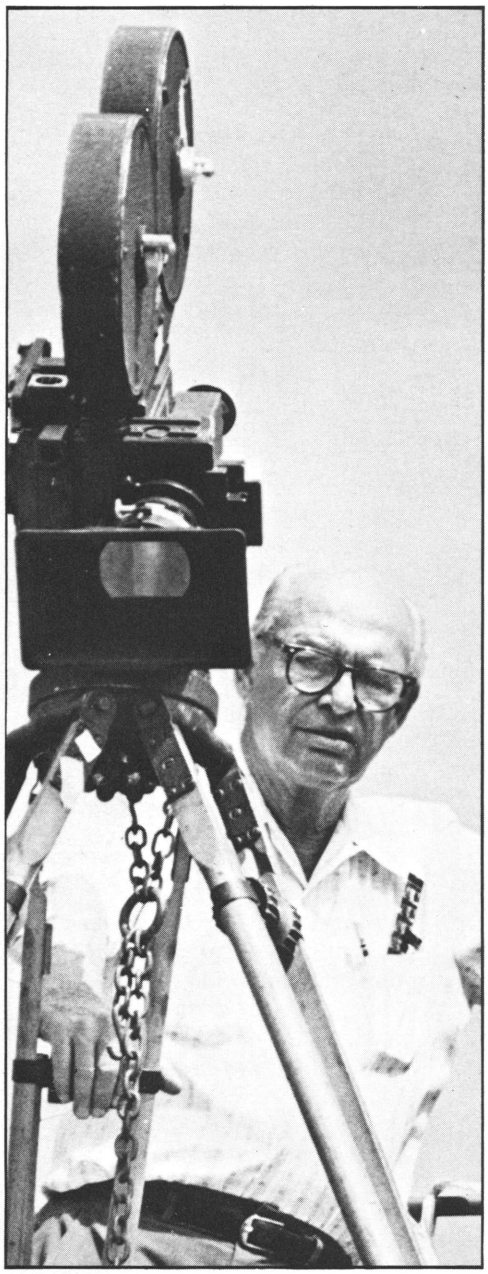
Sockets to go. Gels to go.

come a naysayer and to worry and fret about everything presented to him. We do have an obligation to spell out the pitfalls and liabilities, but, by the same token, I think it is unfair for a cameraman to come aboard and reject summarily the concepts which have been arrived at by the director and the production designer. There's a point where legitimate contribution ends and a sort of dictatorship begins. Although I have very strong opinions, I want to get into the aesthetic of the director, to support the director and try to visualize what he has in mind."

Chuck Gaspar and Joe Day, two of the top men in the field of mechanical effects, were heavily involved. Ackerman was delighted with their professionalism. "They had huge challenges but they always delivered and everything worked as promised on the right day at the right time." An interesting example is a levitation scene, in which a couple comes to the realization that they are dead and have become ghosts. The woman is floating above the floor when a noise wakes her and the spell is broken, whereupon she crashes to the floor.

"This is live action," Ackerman explained. "It required that we line up the exact camera angle beforehand in such a way as to have her body block the apparatus. There was a slot cut through the set and they installed a dog-leg piece of steel rod with a form-fit contoured body platform that she could rest on comfortably. We had to do very little except choose the camera angle and be helpful with the lighting. After the angle was chosen, Joe rigged it and welded it and it worked.

"We did as many in-camera effects as possible, to avoid blue screen in order to make a nice first generation neg when feasible. It's in keeping with the esthetics of simplicity. Some worked out, some did not. There were lots of wire shots, such as the levitation scene, and these required the cooperation of a lot of departments. It helps to have set designed in such a way that a busy background will hide



This man:

- Landed a flying saucer in the heart of Washington, D.C.
- Made Paul Newman and Robert Redford leap 80 feet into a rocky creek
- Destroyed the world's tallest building.
- Sent Raquel Welch on an odyssey through a man's bloodstream
- Fed James Mason to a giant lizard.
- Sliced his boss's son to ribbons with laser beams
- Turned a luxury liner upside down
- Put Rex Harrison aboard a giant moth on its way to the moon

He's L.B. Abbott, ASC,

and he tells how and why he did these things in his new book . . .

SPECIAL EFFECTS

Wire, Tape and Rubber Band Style

NEW FROM → The ASC Press, P.O. Box 2230, Hollywood, CA 90078

Hundreds of color photos, 242 pages, cloth bound

$29.95

Add $3.50 postage and handling per copy USA: $5.00 per copy foreign. Calif. residents add $1.95 state tax per copy.

Please send _____ copies Special Effects—Wire, Tape and Rubber Band Style

Name _____

Address _____

City _____ State _____ Zip _____

☐ Payment enclosed ☐ Charge by Visa ☐ Mastercard

Card # _____ Exp. Date _____

Signed _____

Allow 6–8 weeks for delivery U.S. funds only.

NOW READY!
Revised, Updated

Anton Wilson's
Cinema Workshop

Third Edition

Every film student should have it . . .

Every professional must have it!

12 YEARS OF
WISDOM FROM THE
PAGES OF *American* Cinematographer

The ASC Press
P.O. Box 2230, Hollywood, CA 90078 **$14.95**

Please send _____ copies of Cinema Workshop @ $14.95 each. (Payment with order) Add $2.25 postage in U.S., $3.50 Foreign. California Residents at 97¢ State Tax.

Name _____

Address _____

City _____ State _____ Zip _____

☐ Payment Enclosed ☐ Charge my VISA ☐ Mastercard

Card # _____ Exp. Date _____

Signed _____

Allow 6–8 weeks for delivery U.S. funds only.

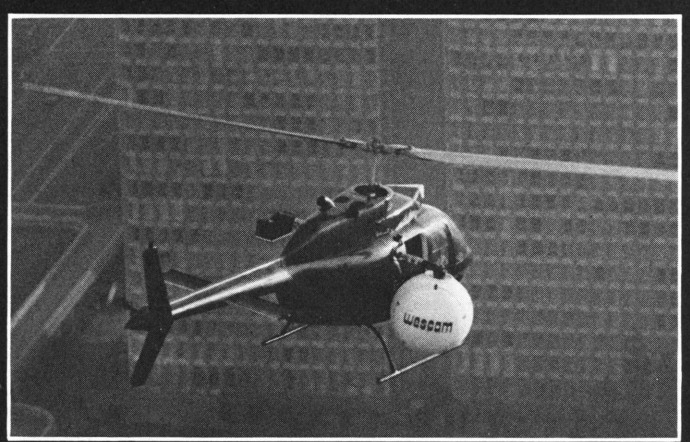
the wires. We could use no back lighting – that shows the wires. The blocking and choreography of the shot are all-important. The good thing about a wire shot is that once it is wired up and operating, you've got the shot and you move on."

Some mirror shots, which have a very brief screen life, were among the most challenging in-camera effects, according to Ackerman. "Making ghostly images appear using a 50-50 mirror is fairly routine," he explained. "The subject that is to be superimposed is against a black background and at right angles to the camera, the mirror is at a 45 degree placement and the mirror axis marries up to the camera axis and you get a transparency. It works very well. However, the desire here was to have a solid looking image, which posed the following problems: There was a two-shot in the film with Adam and Barbara in the attic. A seance is going on down in the dining room which will eventually cause Barbara to disembody and then be reincorporated on the dining room table. We have the couple in the attic, then she fades away. They both have to look absolutely solid, and when she fades all we see is what was behind her. In the usual mirror image you see 50% of the subject and 50% of the background – a ghost.

"In a high-key, well-illuminated scene it would be awfully difficult, but in the attic it was sketchy enough with light-dark patterns that all that was needed behind the girl would be a couple of joists with shadows playing across them. I set an individual light on that part of the background that mimicked the surrounding light on other parts of the background. The other lights didn't strike the area behind the character, but this one special light, which was placed on a dimmer board, did. As all the lamps illuminating the subject mirror image were taken down, the background lamp was brought up, giving the illusion that her solid embodiment was removed, revealing what had been behind her."

WE'VE MADE THE BEST IMPROVEMENT POSSIBLE ON A WESCAM.

WE'VE MADE IT MORE AVAILABLE.



The original Wescam gyro-stabilized camera system has always been the ultimate. For many years, it has been allowing image makers to create those amazing rock solid shots from otherwise unstable platforms such as boats, helicopters, trucks, dollys...you name it.

Unfortunately, since there was only one available, most people had a hard time getting their hands on it and usually settled for using a lesser system.

So, we said, "That's easily solved, we'll just build more."

But first, we re-engineered the mount to feature a tracking flat optical glass porthole for crystal clear imaging. Then we added frame-iris interlock allowing the remote operator to adjust speeds from .5 fps to 50 fps with automatic exposure compensation. We also added a 1000′ magazine.

A complete read-out of all vital information can now be called up at both the operator and technician consoles, giving both an incredible latitude and increased control. In addition, the video can be remoted to the ground.

But making the best better wasn't enough. We had to make sure you could get it. So we are now stationing the complete system, with qualified operator/technicians, at various strategic locations all over the world.

Now, the best part. Not only have we made all these improvements in the technology and made it more available, but we've kept the price competitive.

We're very pleased. We think you will be too.

For additional information, credits or a sample reel, contact:

CANADA	WESTERN UNITED STATES
Istec Inc. Contact: Gary Childs, 1810 Highway 6N Hamilton, Ontario, Canada L9J 1H2 Telephone: (416) 529-5132 Telex: 061-8548 FAX: (416) 529-5311	**Pasadena Camera Rental** Contact: Stan McClain, Hans Bjerno 37 East Walnut Street, Pasadena, CA 91103 Telephone: (818) 796-3300 Telex: 98-1510 FAX: (818) 584-4099
EASTERN UNITED STATES	**ENGLAND**
CRM Group Contact: Terry O'Rourke, E. Anthony Silva 909 East New Haven Ave., Suite 202, Melbourne, FL 32901 Telephone: (305) 727-1428 FAX: (305) 984-8278	**Aerial Camera Systems** Contact: Peter Allwork, Fairoaks Airport, Chobham, Surrey, United Kingdom Telephone: (09905) 7744/7471 Telex: 858-348 FAIRKS G

There were other considerations in making the mirror shots, Ackerman noted. "Because of the physical proximity of the couple we had to make all the lighting completely interactive. If he has a back light, it has to hit her, too. If they're both sitting on the same level, then the axes have to match exactly – they have to be the same distance from the camera and resting at the same angle. She has to have the same keylight as him, even though it's actually a *different* key light. Back light, fill and all the molding have to be credible. It's also necessary to adjust for the discrepancy in the color cast and density of the reflected image versus the transmitted image. I knew we had succeeded when Rob Hummel from Technicolor called one morning and said: 'We were just looking at dailies and the darnedest thing happened – one of the people disappeared.' A freedom you have when you do a mirror shot like this is that once all the geometry is worked out, the camera can pan and tilt freely."

A number of fantastic creatures and puppets were designed and built by Robert Short Productions for live action photography. "It's a very painstaking business and these guys don't have the budget of NASA, so sometimes it takes a lot of ingenuity," Ackerman noted. "What we saw was pretty much what we got. It all works quite well visually."

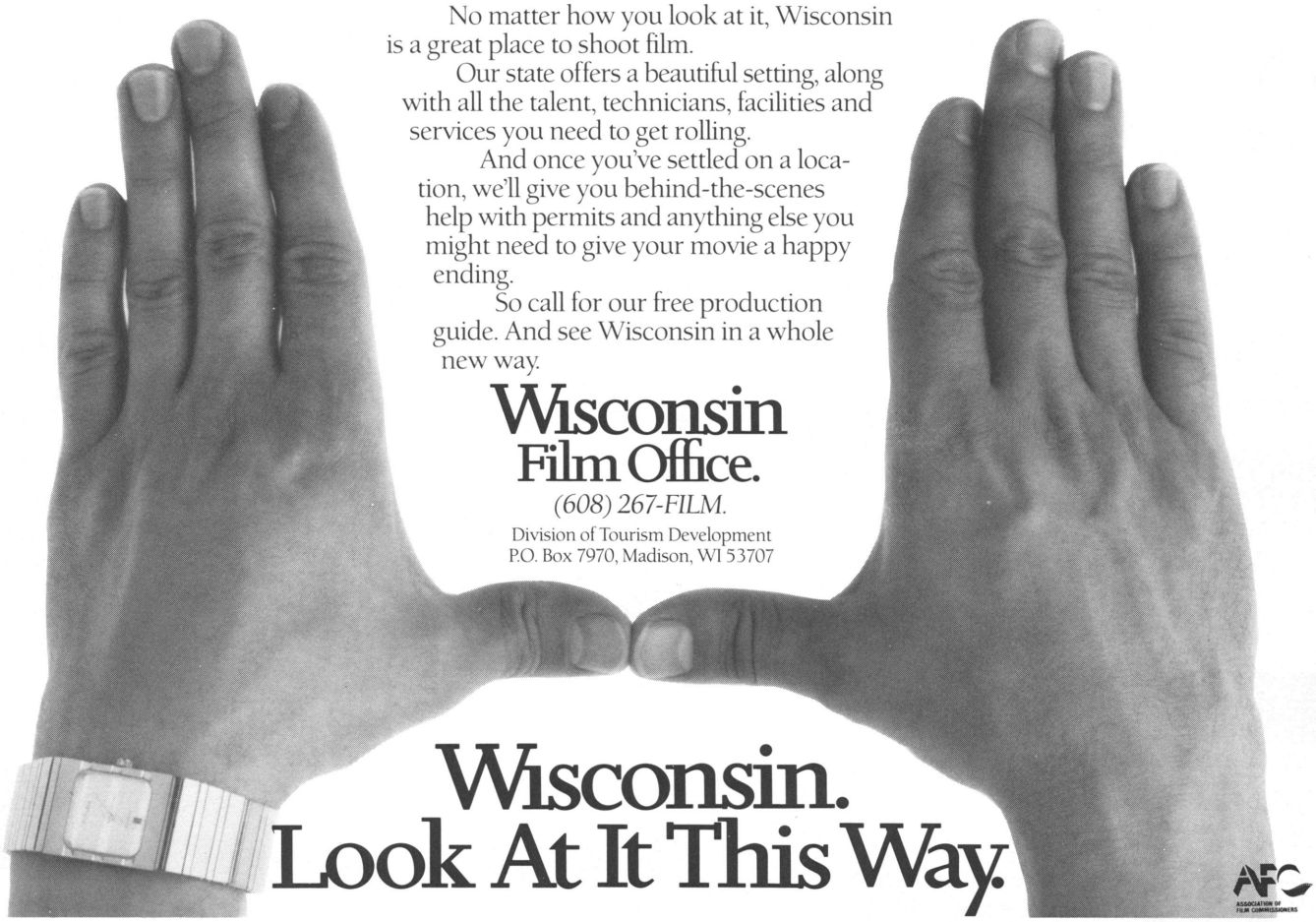
In addition to in-camera effects, a number of blue screen shots were made during principal photography to be composited later by Peter Kuran.

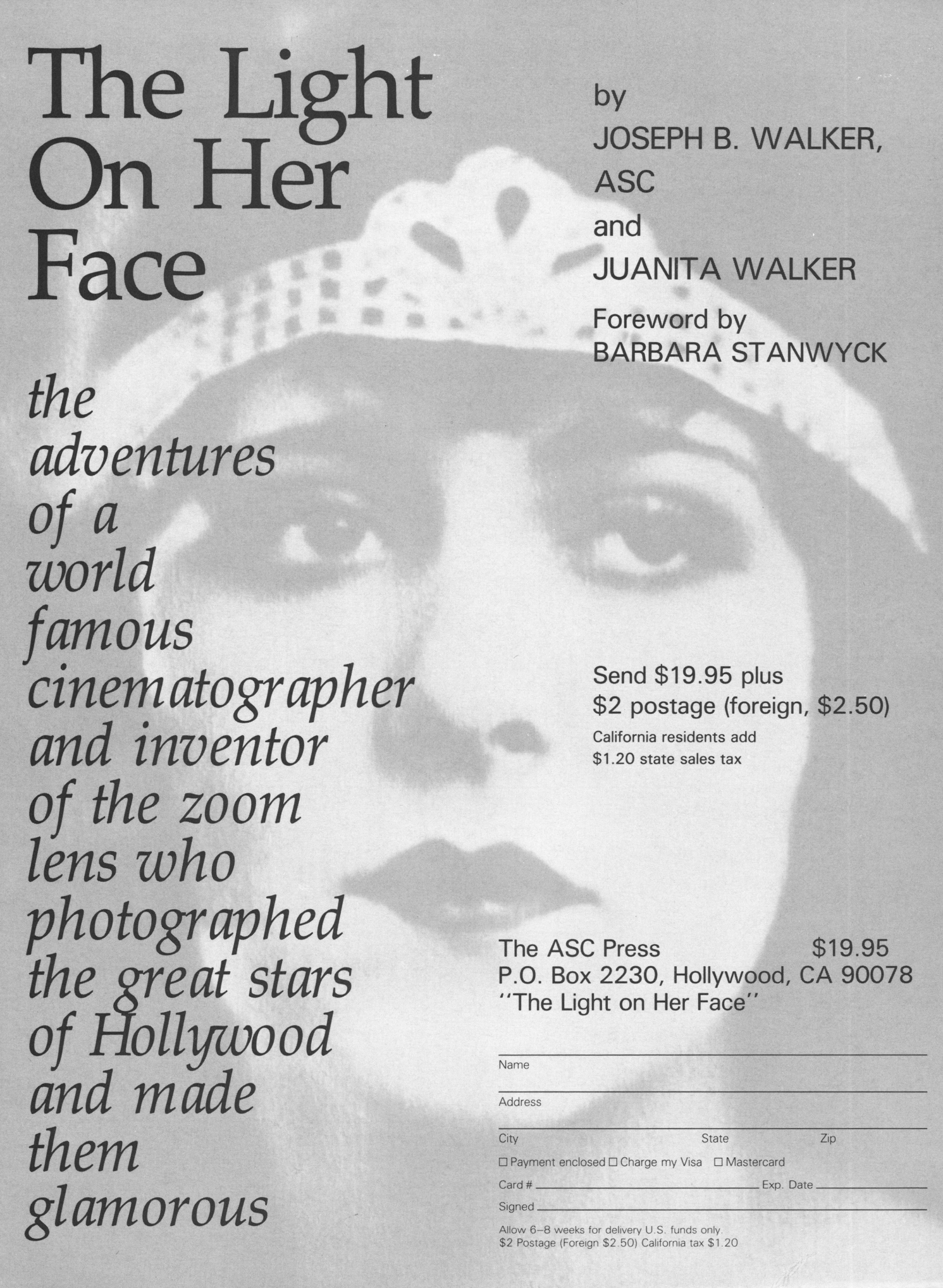
"Blue screen," Ackerman said, "is no big deal. Have your gaffer put in lots of light and the right coloring – make sure you have a richly exposed negative and don't make the mistake of putting a lot of diffusion on the lens – and then it is gracefully in the hands of the compositing team. I've never done a film with this many effects sprinkled through it. There is some stop frame animation which was intercut with live action which matches very faithfully. When we have sculptures coming to life and walking across the room and grabbing somebody, it's a combination of stop-frame animation and mechanical special effects which were fantastic visual sleight of hand. Our desire was not so much to use special effects to create a *Star Wars* kind of show but to integrate them into an individualistic movie."

Ackerman was enthusiastic about his *Beetlejuice* crew. His operator, Doug Knapp, has been with him on other films. "I've never been able to design a shot that he couldn't make," Ackerman said. David Parrish and Patty Harrison were his assistants, Bill Silic was gaffer and Ted Rhodes was key grip. He is a firm believer in growth and change.

"Someone once said to me – more perplexed than critical – gee, we just looked at some of your commercials and a couple of your pictures and some of these things looked different from the others – we wouldn't have known that one cameraman had done all these things," he mused. "Fact of the matter is that I try to design the images following the concept of the project and different films inspire different approaches to things.

"The only allegiance one can have is to be merciless in making the work the best that it can be. Sometimes it is fun to take on a real toughie, which this one was." △


No matter how you look at it, Wisconsin is a great place to shoot film.
Our state offers a beautiful setting, along with all the talent, technicians, facilities and services you need to get rolling.
And once you've settled on a location, we'll give you behind-the-scenes help with permits and anything else you might need to give your movie a happy ending.
So call for our free production guide. And see Wisconsin in a whole new way.
Wisconsin
Film Office.
(608) 267-FILM.
Division of Tourism Development
P.O. Box 7970, Madison, WI 53707
Wisconsin.
Look At It This Way.
AFC
ASSOCIATION OF FILM COMMISSIONERS



The Light On Her Face

by
JOSEPH B. WALKER, ASC
and
JUANITA WALKER

Foreword by
BARBARA STANWYCK

the adventures of a world famous cinematographer and inventor of the zoom lens who photographed the great stars of Hollywood and made them glamorous

Send $19.95 plus
$2 postage (foreign, $2.50)
California residents add
$1.20 state sales tax

The ASC Press $19.95
P.O. Box 2230, Hollywood, CA 90078
"The Light on Her Face"

Name

Address

City State Zip

☐ Payment enclosed ☐ Charge my Visa ☐ Mastercard

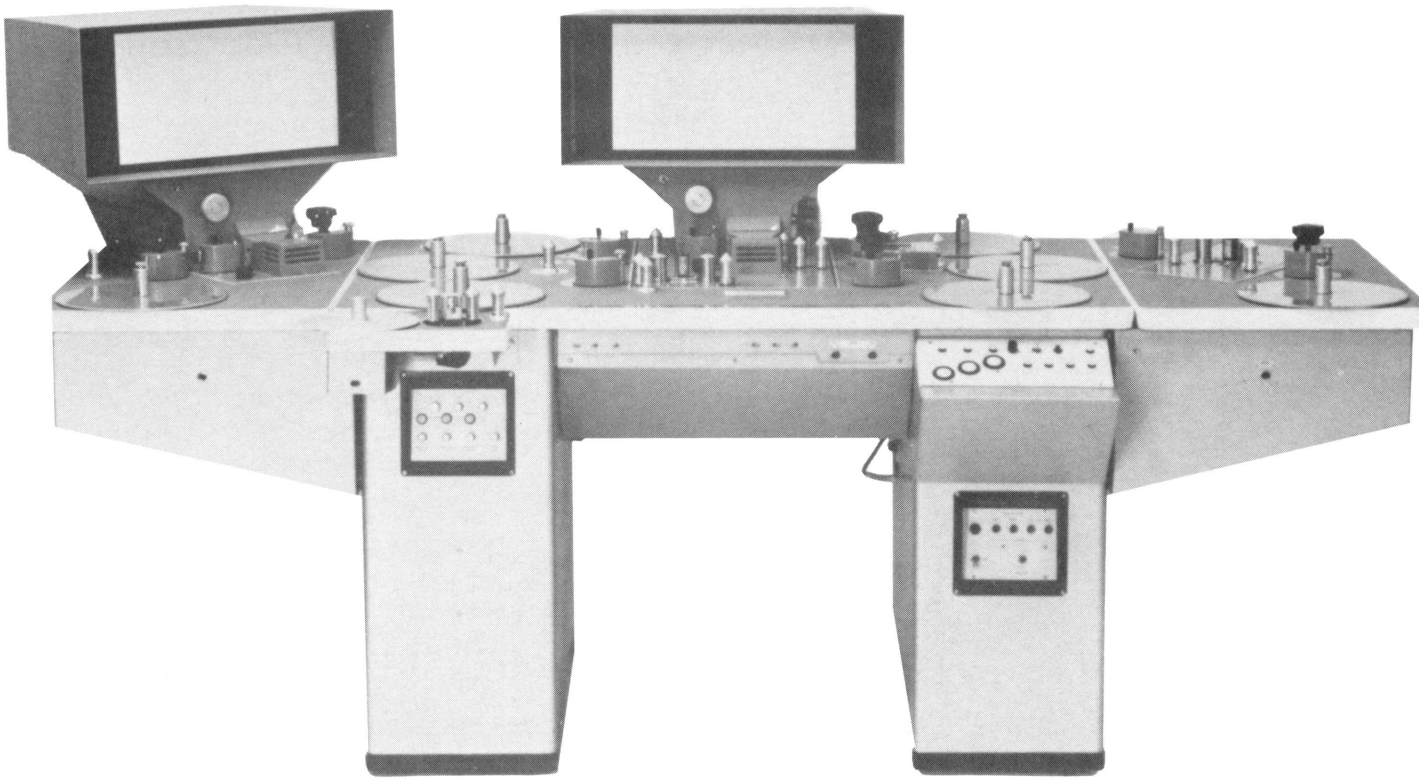
Card # Exp. Date

Signed

Allow 6–8 weeks for delivery U.S. funds only.
$2 Postage (Foreign $2.50) California tax $1.20

KEM ELEKTRONIK

UNIVERSAL 6 / 8 1960



The UNIVERSAL 6 / 8

* MORE THAN 25 YEARS ON THE MARKET
* MORE THAN 1000 UNITS IN THE FIELD
* WITH 3 PIX/1 SOUND
  2 PIX/2 SOUND
  1 PIX/3 SOUND-THE ONLY ONE ON THE MARKET

The UNIVERSAL 6 / 8

COSTS MONEY, BUT
YOU CAN MAKE MONEY, BECAUSE IT IS THE
UNIVERSAL.

KEM ELEKTRONIK MECHANIK GMBH

D 2000 Hamburg 54, Herlingsburg 16 • Telefon (040) 567665 und 567675 • Telex kemdt d 214657

MECHANIK GMBH

UNIVERSAL 6 / 8 1986

The UNIVERSAL 6 / 8

* WITH NEW ELECTRONIC DRIVE
* MAINS AND CRYSTAL CONTROL
* INTERLOCK TO OTHER UNITS INCLUDING VIDEO
* 6 TIMES SOUND SPEEDS
* NEW PLUG-IN MODULE: TV-SCANNER, CAMERA-HOLDER AND KEMSCOPE
* WITH TRANSFER FACILITY FROM FILM TO VIDEO

UNIVERSAL EDITING SYSTEM WELL ACCEPTED BY MOVIE INDUSTRY.
MOST PRODUCTIONS IN USA CUT ON A "KEM!"

KEM ELEKTRONIK MECHANIK GMBH

D 2000 Hamburg 54, Herlingsburg 16 • Telefon (040) 567665 und 567675 • Telex kemdt d 214657

Photos by Alan Wakefield

Australian Backdrop for *Rikky and Pete*

Produced, written, directed and photographed by David Parker and Nadia Tass

by Jean Turner

The director kicks off her boots and says to the star, "Here, Rikky, wear these, I don't like what you've got on your feet!" And the filming goes on.

Are we on the set in Hollywood? Nope. Are we shooting in the red desert of the Australian outback? Yep. Are we suddenly amidst an unusual kind of film production? Yep, again.

For here we see a man and wife team making a movie for international distribution and they are: co-producers, cinematographer/writer, and director/casting director. Along with a full crew they are filming *Rikky and Pete*.

This is not a "first" for them. David Parker and Nadia Tass are experienced movie makers with many Australian credits including their best known collaboration, *Malcolm*, which reached worldwide acclaim several years ago. *Man From Snowy River* and *Far East* are among Parker's credits.

"I had been working on a lot of big Australian films as a stills photographer – for the last 15 years – and it has made a fantastic base for becoming a cinematographer because I have been able to go from shoot to shoot, working with the likes of Russell Boyd and Johnny Seale. It's terrific because your job there is to recall and observe anyway so I used to take in as much as I could and, hopefully, I've learned from cinematographers who I think are as good as you can get," says Parker.

"So when I got the opportunity to shoot a low budget film I just grabbed it. We have a really good system in Australia of sup-

port from government film bodies for first time filmmakers and we are still able to make low budget films about 70 minutes in length for under $100,000.

"I found it is quite different from being around a film crew, to actually be doing it," Parker says in his soft, Australian accent. "I found I fell into it quite well but also I found that all these years I've had to fight as a stills photographer to get my shots and now, suddenly I am telling the gaffer what to do – and I think, 'Gee, this is all right, being the boss.' Of course the responsibility is immense."

Then one day, Parker and his wife, Nadia Tass, decided to make their own film. Tass, a director from the theater and an accomplished actress as well, is the other member of this remarkable partnership of cinematographer/writer and director/co-producer. It works, however, as their first film, *Malcolm*, attests.

It was 1984 when the two mortgaged themselves and turned their Melbourne house into a production office. They raised $1 million and made *Malcolm* an international hit. It was a joining of years of experience Parker and Tass have had in the theater and film industry of Australia. Most of the work on *Malcolm* was done by the Parkers themselves, photographing, writing, directing, editing, producing.

"The thing which I believe is working really well for us, and which I don't believe has ever been done before, is this writer/cinematographer role. It is fantastic to be able to sit and write and know what it's going to look like – from both our points of view. We do use storyboards, just for action sequences and in order to communicate with the rest of the crew," Parker avers.

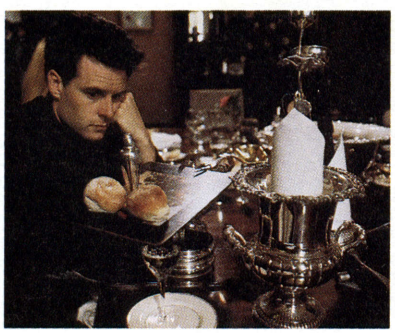
"Nadia is heavily involved in the writing, as well, so we have very much a polarized view of how the images should be. And then, of course, that must be communicated to the people around you. As I write I am writing visually – which a lot of writers do – so that the vision is exactly the way it is written. And the other great advantage is that our relationship is close insofar as the direction of a film is concerned. Nadia's expertise is knowing how to direct in comedy or drama. Our skills complement each other."

It was a bit of a shock to the people from U/A who negotiated with the Parkers for release of *Rikky and Pete* to drive up a normal suburban street in Melbourne and find a studio, which is actually a former ice cream cone factory with a cottage next to it. The cottage is home, and the former factory is where the bulk of the production work is done. "Of course, we take it all home with us so that now our bedroom is the last refuge. The semblance of movie making is everywhere else in the cottage," Parker shrugs.

"In Australia the business is still new enough that a good many constrictions, Hollywood-style, do not obtain. It's about 15 years old, with a lull preceding that. And we did have a fantastic period in the early '20s and '30s.

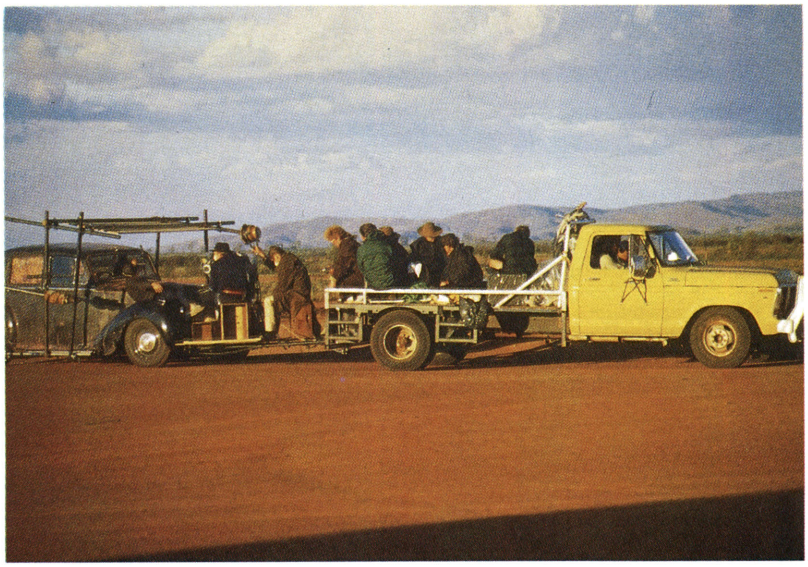
"Casting is a problem," according to Ms. Tass. "Because the business is so young , actors do not have the competition from other actors as they do in America, so they tend to be more blasé about working. I demand absolute commitment to the work at hand, and sometimes that kind of commitment is hard to find."

Australian theater is a very old tradition and this is the source for many film actors who are not always as eager for on location work as they might be for the stage. This, too, is changing, the Parkers agree. However, most of the character parts for *Rikky and Pete* went to dedicated actors from the stage



Opposite page: ***Crossing the desert in 'mum's' Bentley.*** **Far left:** ***Pete glooms at the table midst the accoutrements of wealth.*** **Left:** ***Tass and Parker, an Australian team for Rikky and Pete.*** **Below:** ***Down into a lead mine went the camera crew for much of this movie.***

Top: ***The crew works on the desert crossing with the Bentley in tow. Note the red of the earth.*** **Center:** ***Arrival at the mine of Pete (far left), Flossie and Rikky.*** **Below:** ***Crew sets up for outdoor shot on location.***



whose performances are "splendid," says Tass. Stephen Kearney stars as Pete and Nina Landis is Rikky.

"I believe David's talent for recognizing character in the faces of people is a great advantage which stems from his stills photography days," says Ms. Tass. "He seems able to more than superficially photograph them – he is able to get more depth from expressions and tends to bring about more texture to the work, added shades – which I certainly appreciate. His lighting was brilliant. I find in some Australian works we tend to overlight faces. We seem to think a little bit of shadow is not a good idea – that we must see the whole face in order for it to work, especially for comedy. I don't agree. I think the more depth, the more subtlety. So this is what David is able to give me."

The story of *Rikky and Pete* concerns the journey of a brother and sister through the Australian desert in "mum's Bentley." The main character is Pete, whose inventive mind has developed a computerized newspaper tossing device, attached to his jeep, which folds the papers into an airplane shape and ejects them onto customer's porches as he passes by on a deivery route. This knack for invention and his rebellion against his parents' wealth, leads the pair into high adventure.

A great deal of the picture was photographed at the bottom of a genuine lead mine, some three quarters of a mile below the surface of the earth where lighting challenges emerged on a minute to minute basis. Says Parker, "The problem from a cinematography point of view was that we were working 3,800 feet below the surface. Access is by one small cage and the power is some strange voltage with strange cycles. In America it is 60 cycles and the camera equipment is all designed so that it will work with lights. This one wasn't like the American or the European or the Australian systems – it was something they thought up themselves. We had to change all the light sources anywhere we shot in

STEENBECK®
INC.

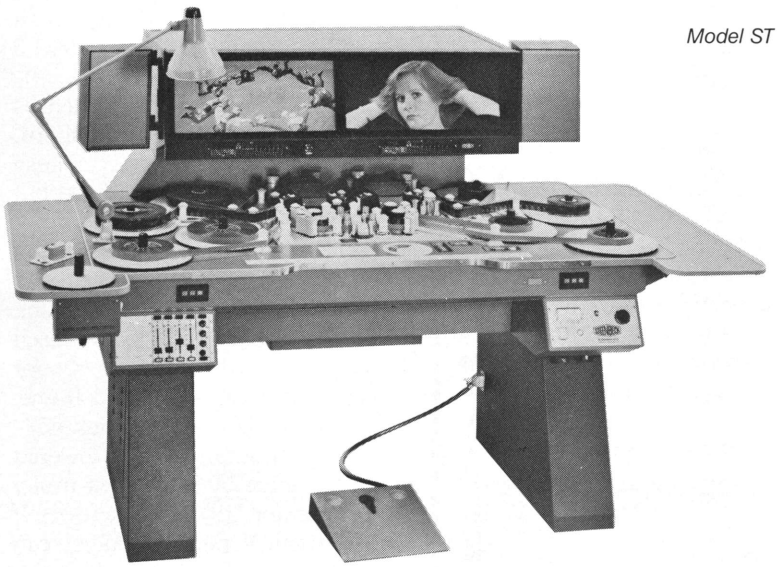
16mm - 35mm Flatbed Editing Tables

Super 16mm • Super 35mm • 35mm Standard or CinemaScope

The Ideal Interface between Film, Sound and Video.

Capable of transferring film to video on the same flatbed editing table.

Model ST 701/701C 35mm • 6 plates • 1 picture head • 2 sound heads



Model ST 721/721C 35mm • 8 plates • 2 picture heads • 2 sound heads

Standard Features:

- Sharp, brilliant picture, virtually without flicker or strobing.
- Immediate sound start-up.
- 18 face prism and revolving sprocket ring insures bright, steady picture.
- Smooth, careful film transport.
- Straight threading - guarantees excellent wow and flutter figures.
- Dynamic compressor for sound level stabilization and automatic muting at high speeds.
- Crystal electronic motor control.
- Universal counter - measures feet, frames and elapsed time, with immediate conversion between counts.

Sales • Service • Rental • Lease/Purchase

STEENBECK INC. • 9554 Vassar Avenue • Chatsworth, California 91311 • (818) 998-4033

or contact your local Steenbeck dealer:

Kingsway Film Equipment, Ltd.
1665 Enterprise Road
Mississauga, Ontario,
Canada L4W-4LA
(416) 672-2880

Laumic Co. Inc.
306 E. 39th Street
New York, N.Y. 10016
(212) 889-3300

Ritz Av Cine
6711 Ritz Way
Beltsville, Maryland 20705
(301) 953-9600

SMS Productions, Inc.
445 W. Erie Street, Unit 103
Chicago, Illinois 60610
(312) 664-3752

Media Specialties
11879 Starcrest Drive
San Antonio, Texas 78247
(512) 496-9581

SEE STEENBECK AT BOOTH 2480-2481 NAB

NEW

SHOULDER CASE FOR CAMCORDERS

Newly developed instant rain-top shown in place. Note small pocket for storing.

porta brace

K&H Products, Ltd.

Box 246
North Bennington
Vermont 05257

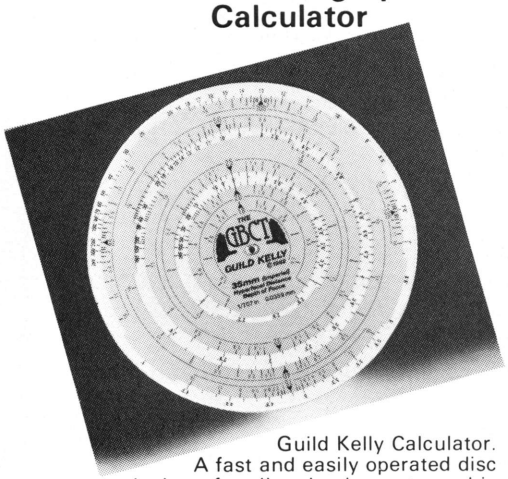
Everyday padded protection.

►This All-The-Time padded case protects against bumps, scrapes, heat and cold. Air travel carry-on. Also quick, easy, extra rainproof and dustproof protection.

PHONE 802-442-8171 FAX 802-442-9118 TLX5106005222 K AND H

GUILD KELLY

The Cinematographers Calculator



Guild Kelly Calculator. A fast and easily operated disc calculator for all main cinematographic calculations. Available in 35mm, 16mm, Imperial and metric versions. Fits neatly in the pocket. For cinematographers, TV camera-persons and all technicians concerned with film or TV production.

Available from:
BIRNS & SAWYER INC
1026 N Highland Avenue
Hollywood California 90038
U.S.A.

JOE DUNTON CAMERAS AMERICA INC
1223 North 23rd Street, Wilmington
North Carolina 28405
U.S.A.

All major credit cards accepted.

WM-D6 SONY

CRYSTAL SYNC RECORDER

We offer a remanufactured version of the Sony WM-D6C Walkman for use as a location sync recorder. The unit features an internal 60hz or 50hz crystal sync pulse generator, complete resolving capabilities and is available with a full range of options.

A special 59.94hz version allows the same flexibility of double system film sound to now be married with conventional location video production techniques. A unique video resolver provides for transfers between audio cassette and video tape and for sync locked playback in the field.

The Film Group

P.O. Box 9 203-527-2972
Wethersfield, CT 06109 U.S.A.

the mine, so from the Australian vapor lights to old stage incandescent lights we went right through, replacing all. It was extremely hot. We were wearing all kinds of safety equipment – respirators and batteries. The electricians were most affected because they were climbing up and down the walls in the dark.

"We ended up converting and using penses, which are a bit like what you call a redhead. The gaffer and I went down a number of times in advance and stood there saying 'What are we going to do?' We thought of everything, from dropping cable 4,000 feet down the shaft from his generator to all sorts of solutions – but we ended up taking the generator down into the shaft. The mine is not a series of small tunnels, as you might suppose. They have rooms the size of factories down there where huge diesel equipment is in use. Cavernous areas. We shot at 400 ASA, using Kodak 94 and shooting with an Arriflex BL, working on 1:4, 1:3 and 1:6 speeds.

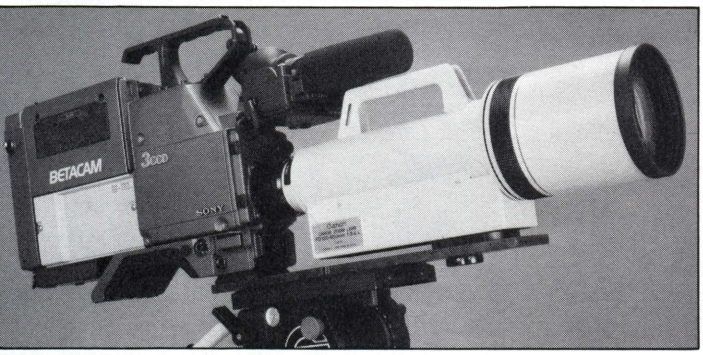
Zeiss high speed lenses were used throughout the shoot, including night work. "These lenses used to be prone to flare, but the newest ones are wonderful," says Parker, whose second camera was also an Arriflex. Parker prefers zoom lenses for drama, "tweaking a little here and there. It makes each image as good as it can be; for instance coming to an end frame, zooming makes it a little tighter."

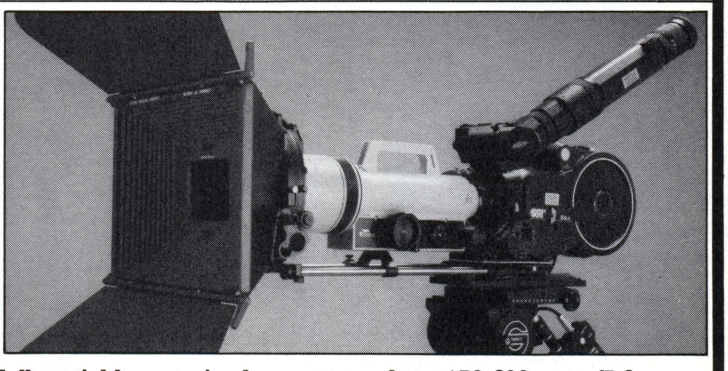
"Equipment was lowered into the mine by hanging it under the cage (or lift). The cage itself holds about 40 people, and you can dangle a lot of equipment underneath it. "We took a crane down there too. The sequence needed a lot of lamps to create pockets of light. It was so dark down there that we could hardly see the meter, let alone get a reading."

Shooting in the desert was restricted mostly to early morning and late afternoon when the color temperature is very high and brings out the colors. "We have a red hue in our desert which is superb and with blue skies to match it was very beautiful. Consistently a

THE BEST OF BOTH WORLDS

the OpTex/Canon 150-600mm motorised zoom for film *and* video cameras.





▶ **Canon optics converted by OpTex** for film & video use. ▶ **Fully variable motorised zoom control** over 150-600mm at f5.6; manual focus/iris; external Nicads & charger available. ▶ **Specially developed for Commercials, Features, Sports, Wildlife;** a superb quality, versatile zoom. ▶ **OpTex Universal Mount** accepts Mitchell BNCR & S35, Arri Bayonet & PL, etc. ▶ **Broadcast Mounts** available for all Betacam (tube & chip); Sony 330, DXC-3000, etc; JVC 210/310/320/900/950; Hitachi SK97/FCP-1/FCP-2; Ikegami HL-79D/HL-79E/HL-95. ▶ **Tiffen glass correction filters** available in special holders: 85/85N3/85N6/85N9. Others to order. ▶ **2X & 1·4X Range Extenders** in dual universal mount for Sony-type and film cameras, and in Ikegami mounts; 2X converts to 300-1200mm (2 stops light loss); 1·4X converts to 210-840mm (1 stop light loss).

OpTex

You cannot achieve a focal length of this angle with any other lens except bulky box-type lenses which restrict mobility to a fixed position. Our 150-600mm motorised zoom is a truly mobile cameraman's tool – only from OpTex.

OpTex 22-26 Victoria Road, New Barnet, Herts EN4 9PF UK. Telephone: 01-441 2199. Telex 8955869 OpTex G. Fax: 01-449 3646.

Indiana will leave you with a lasting impression.

When you produce in Indiana, we'll give you all our best shots. Talent pools. Skilled technicians. Excellent production facilities. Spectacular landscapes. Big city and small town locations. Everything you need to make your project a success.

You'll also be impressed by our hard work and hospitality. We provide complete pre-production information and 24-hour production coordination services. We cut red tape wherever we can. And we don't even require a state film permit.

To get rolling, just give us a call:

(317) 232-8829

Karen Galvin, Executive Director
Indiana Film Commission

Indiana Department of Commerce
Lt. Governor John Mutz, Director
One North Capitol, Suite 700
Indianapolis, Indiana 46204-2288

PRODUCE IN INDIANA

Member of Association of Film Commissioners

LONDON INTERNATIONAL FILM SCHOOL

Hollywood, Athens, Tokyo, Lagos, Rio, Tel-Aviv, Reykjavik, Sydney, Toronto, Geneva, Hong Kong, London – just some of the centres worldwide where our graduates are making films.

Students from over thirty different countries come to the heart of London's West End to take our two year Diploma Course. Experienced professionals teach all aspects of film making – covering studio feature and location documentary productions in 16mm and 35mm.

Teaching of scriptwriting, direction, camerawork, sound recording, editing etc. ensures a high degree of professionalism. And it must do – Governments, T.V. Networks and Educational Foundations have been sending personnel to us for training for over twenty years.

This intensive Course, demanding hard work and committment, produces over twenty-five films each term – many students working on more than one production.

There are fresh intakes in January, April and September.

Contact: The Administrator, London International Film School, Department AC2 24 Shelton Street, London WC2H 9HP, England. Telephone (London) 01-836 0826

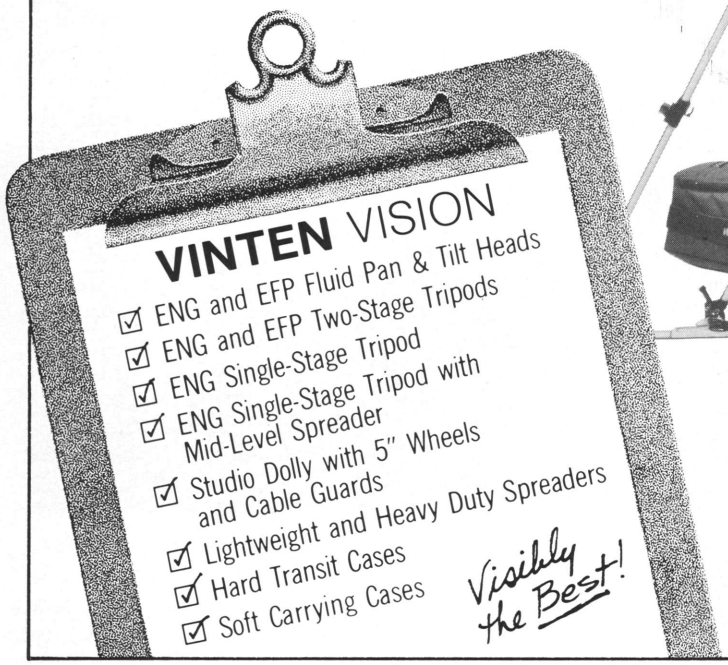
AMERICAN CINEMEDITOR

A Publication of the Honorary Professional Society — American Cinema Editors, Inc.

HOLLYWOOD'S POST-PRODUCTION MAGAZINE

A FILM EDITOR ENTERS THE WORLD OF VIDEO—PART I • SIDNEY POLLACK TALKS POST-PRODUCTION • PROFILES OF EDDIE NOMINEES • A FILM EDITOR ENTERS THE WORLD OF VIDEO—PART I • SIDNEY POLLACK TALKS POST-PRODUCTION • PROFILES OF EDDIE NOMINEES • A FILM EDITOR ENTERS DIGITAL ERA • STOCK FOOTAGE:

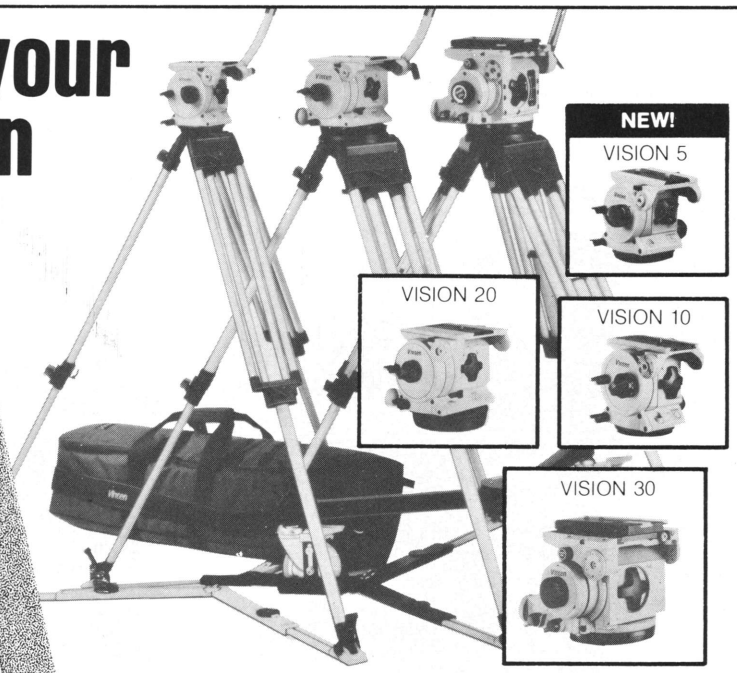
Put VINTEN on your Field Production Checklist . . .



VINTEN VISION

- ☑ ENG and EFP Fluid Pan & Tilt Heads
- ☑ ENG and EFP Two-Stage Tripods
- ☑ ENG Single-Stage Tripod
- ☑ ENG Single-Stage Tripod with Mid-Level Spreader
- ☑ Studio Dolly with 5" Wheels and Cable Guards
- ☑ Lightweight and Heavy Duty Spreaders
- ☑ Hard Transit Cases
- ☑ Soft Carrying Cases

Visibly the Best!

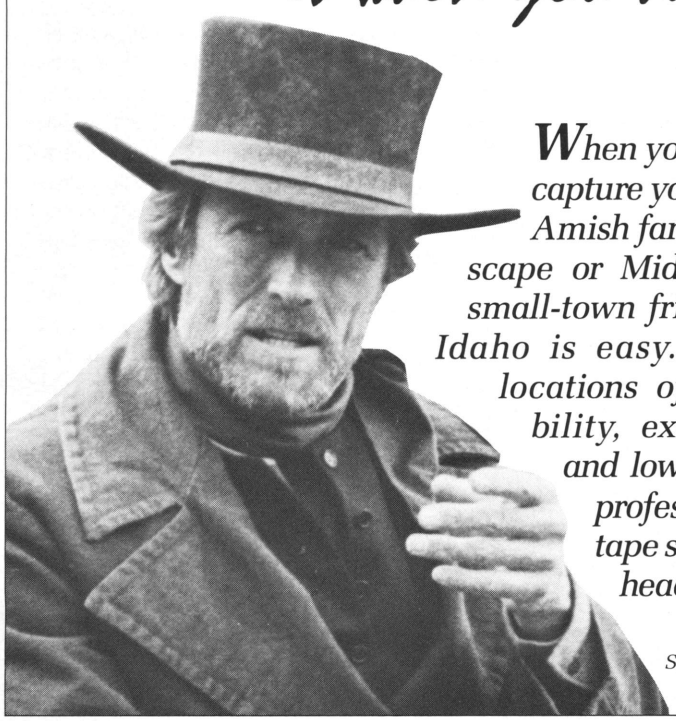


See our complete range of equipment at
NAB BOOTH 1425 SOUTH HALL

Vinten

275-C Marcus Blvd., Hauppauge, New York 11788-2001
Phone: (516) 273-9750 Telex: 640470 Fax: (516) 273-9759

"The only tough part about filming in Idaho is when you have to leave." ***Clint Eastwood***



Scene from "Pale Rider."

When you come to capture an Idaho scene, Idaho will capture your heart. Be it snowy peaks or desert canyons. Amish farms or wilderness ranches. Mountains, moonscape or Middle America. Leaving Idaho's beauty and small-town friendliness behind is difficult. But filming in Idaho is easy. Our unspoiled locations offer fast accessibility, excellent services, and low costs. Plus Idaho professionals cut the red tape so you can cut overhead. Idaho works!

For a free location kit, contact:
Peg Owens Hamende
Film Promotion Specialist
Idaho Film Bureau
Department of Commerce, Room A
700 West State Street
Boise, Idaho 83720
1-208-334-2470 or

1-800-942-8338

IDAHO

Reflections 2 : Poster

by Jean Turner and Benjamin Bergery

Steven Poster, ASC, acclaimed this year for his cinematography of *Someone To Watch Over Me,* presented a recent seminar more as a test for a picture he is currently shooting, than as a review of a scene from *Someone.* He is now working on *Big Top Pee Wee* using Eastman 5295 throughout.

"Reproducing a scene that is already done is infeasible. The same circumstances do not prevail and the scene (or any scene) would be impossible to reproduce again without the exact duplication of settings, crew, and emotional impact," Poster declares.

The most important part of the day for Poster was teaching the reasons for the testing and how that testing was done. Although similar shots to the hallway scene from *Someone* were used as a demonstration, "I did not try to re-do something already done, but rather approached it as something fresh so we could share a new experience together."

Poster was asked how the style of a film is established when the director/cinematographer alliance first begins. "Each approach is different. You form a relationship with a director, and when you first meet, you both are testing: 'Do you like this? Do you like that?' The best way to do it is to go see movies together. If you have ideas based on the script you make comments and see what the response is. It's a give and take in the building of the relationship that also includes developing the style for a movie."

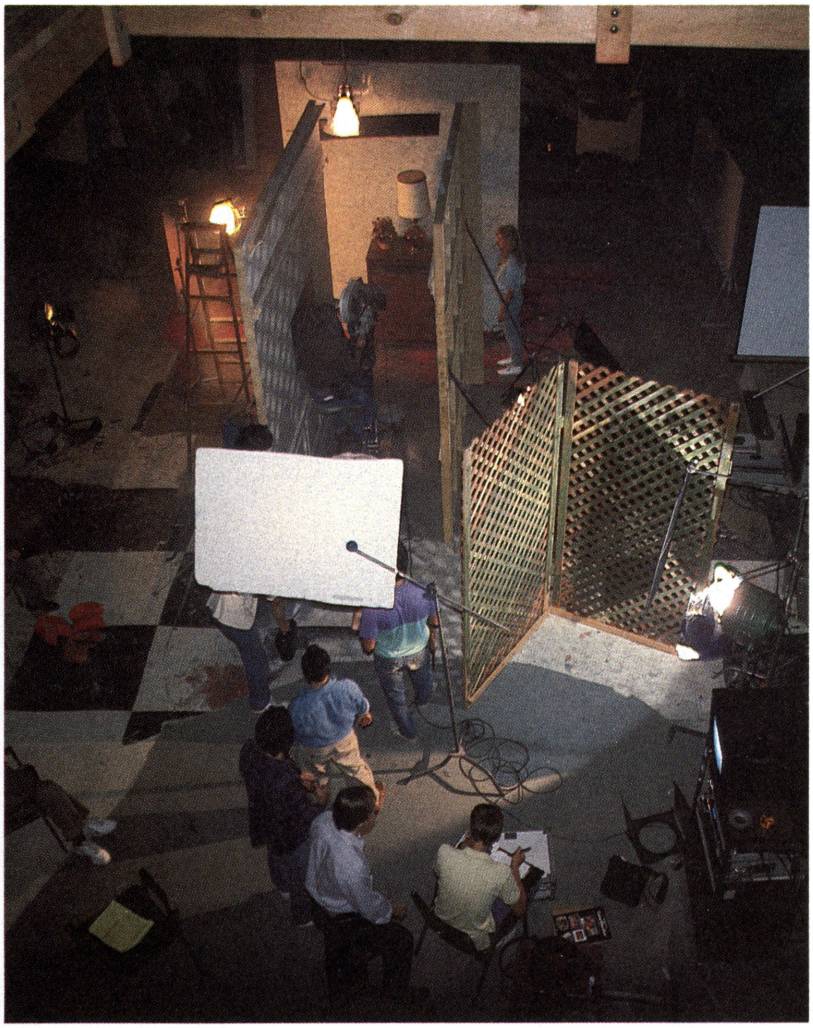
When work on the film begins, "you work within the context of the script at all times. When I read a script I tend to pre-visualize it, especially if it is one I really like and really want to do. I make notes. The approach to a specific feeling, after you first read it, becomes a part of serving the ideas in the script and trying to tell the story as well as possible."

During the seminar, Poster used Panavision cameras and Primo anamorphic lenses. "It turned out we did not use the anamorphic format for *Pee Wee,* but I was using the seminar to test some ideas for the new film. When choosing a lens for a scene, you watch the scene blocked by the director and watch the rehearsal; you know the context of the scene within the script and you know what the scenes are before and after, hopefully, and you decide to fold in a choice on a perspective that will fit and will cut consistently with the style of the film."

About the choice of a camera position for a certain effect, Poster says, "You choose the camera position based on the context of the scene. If you are working with a dominant character and you want to preserve that for the screen, you set the camera below his eye line. If you want to diminish that character's power, you go over the eye line. There are many tricks of composition which help you choose the camera setting based on where you want to be for the emotional health of the scene. It becomes almost an intuitive thing.

"Metering is again another of those intuitive practices that can be thought of on one hand as a science and on the other as an art. I tend to believe it is somewhere in the middle. In recent years I have gone mostly to using a spot meter because I want to meter the actual tones that I am reproducing on the film, and it helps me deliver what I have pre-visualized.

"I carry with me a gray card or a piece of a gray card, at all times, so I have a reference to what the middle tone is, and when I read an area with that gray card I know how tones will reproduce based on the gray scale. With experience you find that metering isn't as important as an intuitive sense of where the exposure should be. It is very easy to become meter-happy and over-analyze. I prefer a basic reading in one area and almost do the rest by eye."



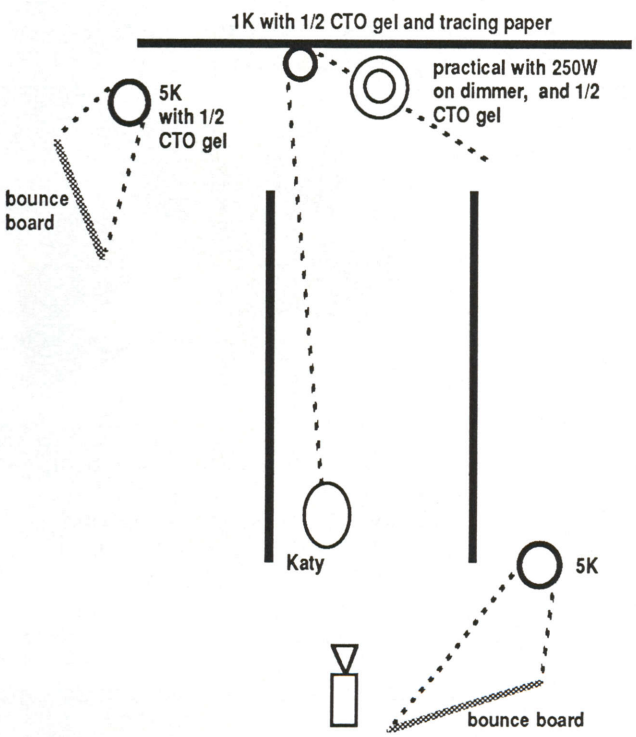
Technical Data

Lens: Panavision 100mm "E" series (Anamorphic)
Filter: Poster's White Net 1
Iris Setting: T2.8 .7
Camera: Panavision Platinum
Format: Anamorphic 35mm (2.40:1)
Film: Eastman Kodak 5295
Film Rating: 320 ASA
Lights: 1-1K, 2-5Ks from Mole-Richardson (tungsten)
Sound Stage: USC Cinema/Television School
Processing and Workprint: Technicolor Lab
Print: 70mm anamorphic blow-up (2.2:1)
Timing Lights: Yellow = 27, Cyan = 44, Magenta = 46

Light Values

(with reflected light meter)

Left-hand wall: T4 (+ ½ stop over key)
Katy's highlights: T4 (+ ½)
Katy's shadow: T2.8 (− ½)
Wall in middle: T5.6 (+ 1½)
Lampshade: T11 (+ 3½)
Wall lit by lamp: T8 (+ 2½)


1K with 1/2 CTO gel and tracing paper
practical with 250W on dimmer, and 1/2 CTO gel
5K with 1/2 CTO gel
bounce board
Katy
5K
bounce board

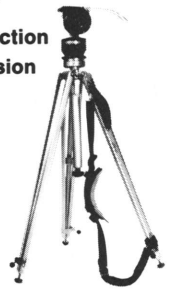
Opposite page: ***Katy Wolff, photographed by Poster during workshop (from timed 70mm blow-up).*** **Below:** ***Poster at the camera.*** **Above:** ***Overhead shot of sound stage without bounce light.*** **Right:** ***Faking the practical.***

Photos by Jasper Johall

Get a leg up on the competition with the FAST TRIPOD

SUPER STIX

- Aluminum construction
- Swiss-made precision
- Weatherproof
- Lightweight
- Ball level
- Rising column
- Carry handle
- Shoulder strap
- Velcro tie-ups



SuperStix *(Legs only)* ..... **$699.**
SuperStix w/Miller Pro 106 .. **$1625.**
SuperStix w/O'Connor 30 ... **$1995.**
SuperStix w/O'Connor 50 ... **$2895.**
SuperStix w/Sachtler 7+7 .. **$2995.**

IMAGE DEVICES
INTERNATIONAL

MIAMI	ATLANTA
1825 NE 149 Street	3311 Empire Blvd.
P. O. Box 61-0606	P. O. Box 82835
Miami FL 33181	Atlanta GA 30354
PHONE 305 / 945-1111	**PHONE 404 / 766-1111**

IDI ships anywhere in the world

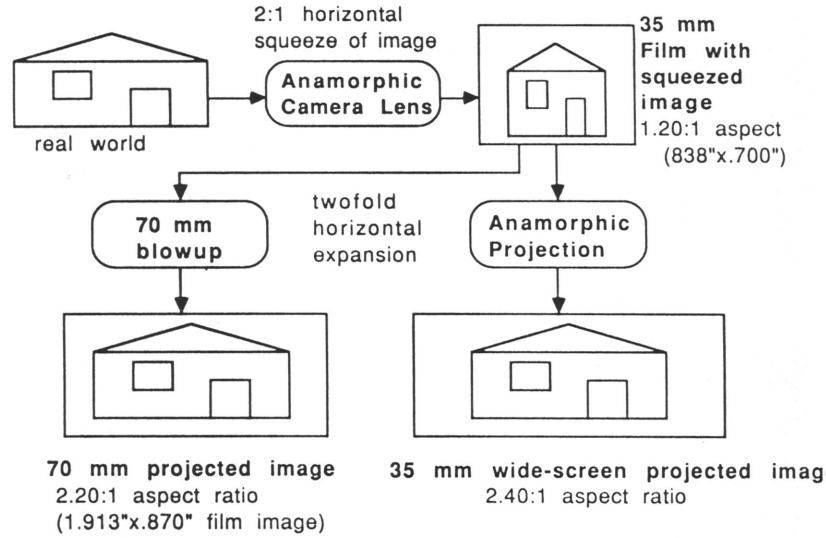
THE CANADIAN CONNECTION

AATON CAMERAS
COOKE LENSES
RONFORD BAKER
CAM-RAIL
STEENBECK
LTM LIGHTING
LEE FILTERS
KINGSWAY MATTE BOX
FLEXFILL

SALES-SERVICE-RENTALS

Kingsway Film Equipment Ltd.

1665 Enterprise Road
Mississauga, Ontario
Canada L4W 4L4
Tel: (416) 672-2880
Fax: (416) 672-2688
Telex: 06-967528



A simplified view of the anamorphic process

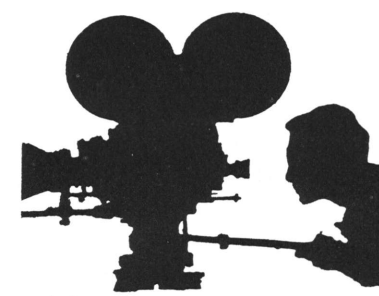
When it comes to results expected from a laboratory, the relationship with the lab is based on the personalities with whom you deal, according to Poster. "You really rely on them to understand the words you say when you say, 'warm, cold, hot, less hot, dense, light, etc.' If you have someone there that you trust to understand, you are much further ahead. If you don't, you almost have to show the lab an example and form a partnership based on your sample. It is very much a personality thing.

"By delivering to them the kind of exposed film that you believe is right, and having them develop that and print it and follow your guidelines they can deliver the image you have in mind. The way I go about doing this is based on common sense and a few practice tests. First you must know how much light it will take to deliver a good visual black in the print.

"The lab can do this for you by taking a short piece of your film stock and processing this unexposed negative. They then should print this 'clear' negative at a succession of densities starting at light 25 and concluding at the light number at the top of the scale. Once these pieces of print are screened in order, you will see that there are a succession of tones representing grey to black. When the tone reaches black the following pieces will not get any darker. This phenomenon is called reciprocity. The light point at which this usually happens is approximately light 40.

"Once you know what printer lights it takes to do that, you discover by exposing a series of further tests, where the first shadow area falls, where there is some detail in the print and where subsequently each tone from that to white exposes. From that you can reproduce the tones you previsualized so you know that if you meter something at 5.6 for a highlight, it is going to be an object with a tone rather than something that is all burned out." (Lab work for the seminar tests was done by Rob Hummel of Technicolor.)

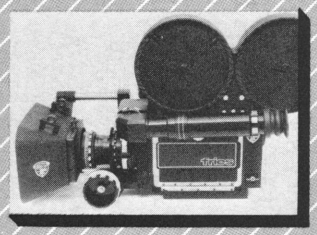
At press time, Poster had just been nominated for an ASC award for Outstanding Cinematography for *Someone to Watch Over Me.* Some of his other credits include *The Boy Who Could Fly, Blue City, Testament* and *Strange Brew.* △



Things to Come...

Sometime in the near future we will have an article about a very special episode of *The Twilight Zone* which Rod Serling considered the best of the lot. Our story will tell the story behind this special thriller called *"Walking Distance"* and starring the late Gig Young.

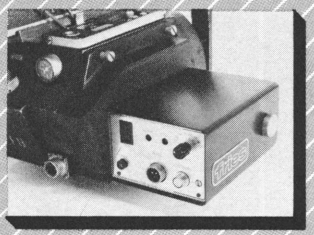
MODERNIZED EQUIPMENT FOR MODERNISTIC FILMAKERS



35R Beamsplitter reflex conversion to the Mitchell Std./ High Speed camera. Features include interchangeable lensmounts, film clip viewing, orientable viewfinder, video assist, high-speed/crystal/ single-frame motor.

AF35R Follow focus beamsplitter reflex conversion to the Mitchell Std./High Speed camera for computerized motion control. Features include 4" bellows focus travel, lead screw drive, internal capping shutter, choice of lensmounts, orientable viewfinder, film clip viewing, video assist, and high speed/ crystal/single frame motors.

35R3 Rotary mirror reflex conversion to the Mitchell Std./ High Speed camera. Features include interchangeable Arri, BNC-R and Nikon lensmounts, orientable viewfinder, video assist, and a high-speed/crystal motor.



120M2 is an "all-in-one" motor for the Mitchell S35R/Mark II. Features include 4 to 120 FPS, crystal 24/25 or 24/30 FPS, forward and reverse, auto mirror positioning, remote single-frame, intervalometer, strobe triggering and TV sync.

MOTION CONTROL
HIGH SPEED
INSERTS
TIME LAPSE
SPECIAL EFFECTS
VIDEO ASSIST

Fries Engineering Inc. 12032 Vose Street, North Hollywood, California 91605 Phone (818) 765-3600 Telex 4720922

fries Engineering

San Francisco's Source For CineJib.

Supplying *Complete* Production Packages in 35mm, 16mm & Video

- Camera
- Sound
- Editing
- Lighting & Grip
- Electrical
- Expendables

Adolph Gasser Inc.

RENTAL SERVICES
750 BRYANT STREET
SAN FRANCISCO, CA 94107
(415) 543-3888

1988 Rental Catalog Now Available

WHEN YOU'VE REACHED THE STAGE WHERE NO OTHER EQUIPMENT WILL DO.

Renting equipment in New York can often be a dramatic experience. So we at TCS have decided to make things easy for you.

We rent the highest standard of equipment possible, serving all your production needs.

And because we're a smaller-sized company, we're not too big to deliver friendly, knowledgeable and personalized service. On time. And within your budget.

Our latest line includes:

ARRI BL 4 • ARRI 35 III-130 • ZEISS • ANGENIEUX • COOKE • SACHTLER • AATON

So when you're tired of the big, impersonal renting arena, rely on TCS. You'll steal the show.

technological cinevideo services, inc.

630 NINTH AVENUE • 10TH FLOOR • NEW YORK, N.Y. 10036

SALES • RENTAL • SERVICE • 212-247-6517

SCENIC FOG EFFECT FILTERS.

What will they do for you?

(See answers below)

A

B

Can you tell the difference between photo A and photo B? One is real fog, and the other was shot using a Harrison Scenic Fog Filter to create the fog effect.

The newest creation in a long line of effects, designed by Harrison, creates a natural looking fog scene. Having less fog in the foreground and more fog in the skyline — just like mother nature.

Now you can create a natural looking fog using the Scenic Fog Effects, anyplace, anytime. Varying the degree of effect for a particular scene by using the (5) different filters in the set. Individual filters are available.

Sizes range from all popular series sizes through professional 6.600 × 6.600.

Be prepared the next time you go on location. Call or write Harrison with your Fog requirements today!

Harrison & Harrison

P.O. Box 1797
Porterville, California 93258-1797
Phone: (209) 782-0121 • Cable: HARALINE

Answers: A—Natural Fog; B—Scenic Fog Effects Filter

Videotape Records Thunderbirds in Flight

by Erica Shames

Predicting the performance of video cameras mounted inside the cockpits of F-16 supersonic jets was just one of the concerns of the production team shooting a video documentary on the USAF Thunderbirds. Przyborski/Camp Productions recently produced *Thunderbirds...A Team Portrait,* which began airing in December as a syndicated TV special.

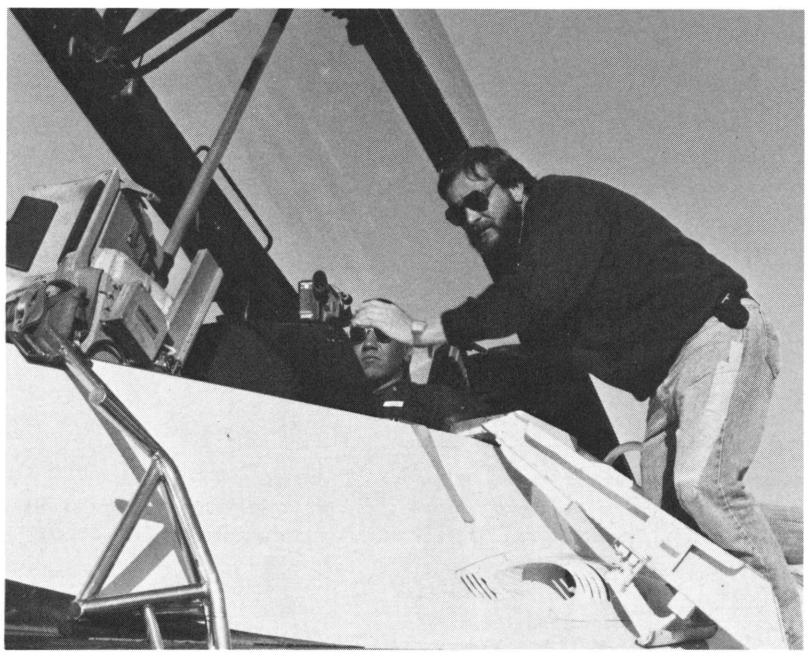
Camera performance in these supersonic jets, the low light conditions in airplane hangars and the rugged conditions encountered in the Las Vegas desert were the primary challenges to overcome. Successful completion of this assignment required a perfect combination of rugged, high performance video equipment.

"We did a site survey at Nellis Air Force Base, near Las Vegas, where most of the shooting would take place," recalls Glenn Przyborski, co-owner of the 12-year-old, Pittsburgh-based production facility.

Not only did the production team encounter horrendous noise and vibration levels in and around the jets, which cause tube cameras to produce microphonics or horizontal lines in the picture; they also had to consider how to videotape shiny red, white and blue jets, continuously waxed to sparkle in the bright sunshine.

"We were concerned about being hindered by comet tails and beam lags, once the intense Las Vegas sun hit the jets," cited Mr. Przyborski. "They were so shiny they resembled brand new cars coming off an assembly line. The only cameras that could be used for these shots, we decided, were ones with CCD imagers. We had a couple of choices. I had seen a demonstration of the Sony DXC-3000 and felt it was more than adequate. The inherent reliability of Sony equipment was a big factor in our decision to go with the DXC-3000s."

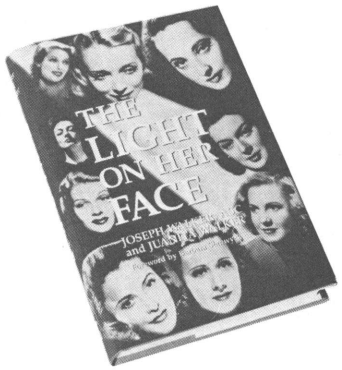
Ultimately, the production package consisted of: two Sony DXC-3000 CCD chip cameras; a BVW-105 CCD camcorder system; a BVW-25 Betacam® field recorder/player; and four 8mm Handycam® camcorders.



Top: ***Mounting Video 8 inside F-16 cockpit.*** **Below:** ***Przyborski and crew shooting cutaways of F-16 and pilot.***

Przyborski, who normally directs and shoots television commercials on 35mm film, chose to videotape the entire production. "We wanted to place cameras in each of the jet cockpits and focus them on pilots. Clearly, film cameras were too big," Przyborski calculated. "The only camera/recorder in the country that would fit in an

The Light On Her Face



"Walker's book is a treasure chest of historical tidbits and anecdotal gems, worth reading by anyone who loves film lore."
—Robert Osborne
The Hollywood Reporter

The ASC Press $19.95
P.O. Box 2230, Hollywood, CA 90078
"The Light on Her Face"

Name

Address

City State Zip

☐ Payment enclosed ☐ Charge my Visa ☐ Mastercard

Card # Exp. Date

Signed

Allow 6–8 weeks for delivery U.S. funds only.
$2 Postage (Foreign $2.50) California tax $1.20

SALES/SERVICE/RENTAL

- Dealer for most major companies including ARRIFLEX, SPECTRA, STEENBECK, and TIFFEN
- Full line of expendables
- Buy/Sell/Trade Used Equipment
- Motion Picture Equipment Service/Sales/Rental

AATON ANGENIEUX REPAIRS
(ARRI, ECLAIR, BEAULIEU, BOLEX Etc.)

- Factory trained by AATON and ANGENIEUX in France
- 20 yrs experience in motion picture field
- Servicing all major motion picture equipment

SMS PRODUCTIONS, INC.
445 W. Erie Street Unit 103
Chicago, IL 60610 312-664-3752

CALL FOR ACTION IN MALAYSIA?

JUST CALL FOR PETER ROBINSON STUDIOS

Call us PRS for short. We can arrange sponsorships for all film and video productions. We are the longest-established house in Malaysia and our close contacts with local authorities will ensure fast, trouble-free productions, right from day one. Hire our crew or rent our comprehensive range of equipment, we'll get it done.

Latest equipment on our list:

- Arriflex III (5 – 130 fps)
- Arriflex IIC
- Cooke Varotal 20:100
- Angenieux 25:250
- Arri HMI Lights
- Ikegami Camera
- BVH – 500 1" C Format Recorder
- Timecode recording, mixing, transfers
- Editron computer-lock systems
- And much more!

TELEX OR FAX
PETER ROBINSON STUDIOS
3, JALAN MENTRI
55100 KUALA LUMPUR, MALAYSIA.
Tel: 9851855, 9854546, 9853854
Tlx: 30646 Fax: 9844692

GET PRS INTO ACTION AND YOU'LL GET IT RIGHT!

F-16 cockpit is the 8mm camcorder."

The Sony 8mm camcorders were modified to fit the needs of the production. First, the start switch on the camera was moved from back to front to be within easy reach of the pilots. Then an LED light was placed in the cockpit near the on/off switch to enable the pilot to confirm when the unit was recording. The head switching mark, visible as a white dot moving across the bottom of the frame, was rendered invisible by moving it into the vertical blanking interval.

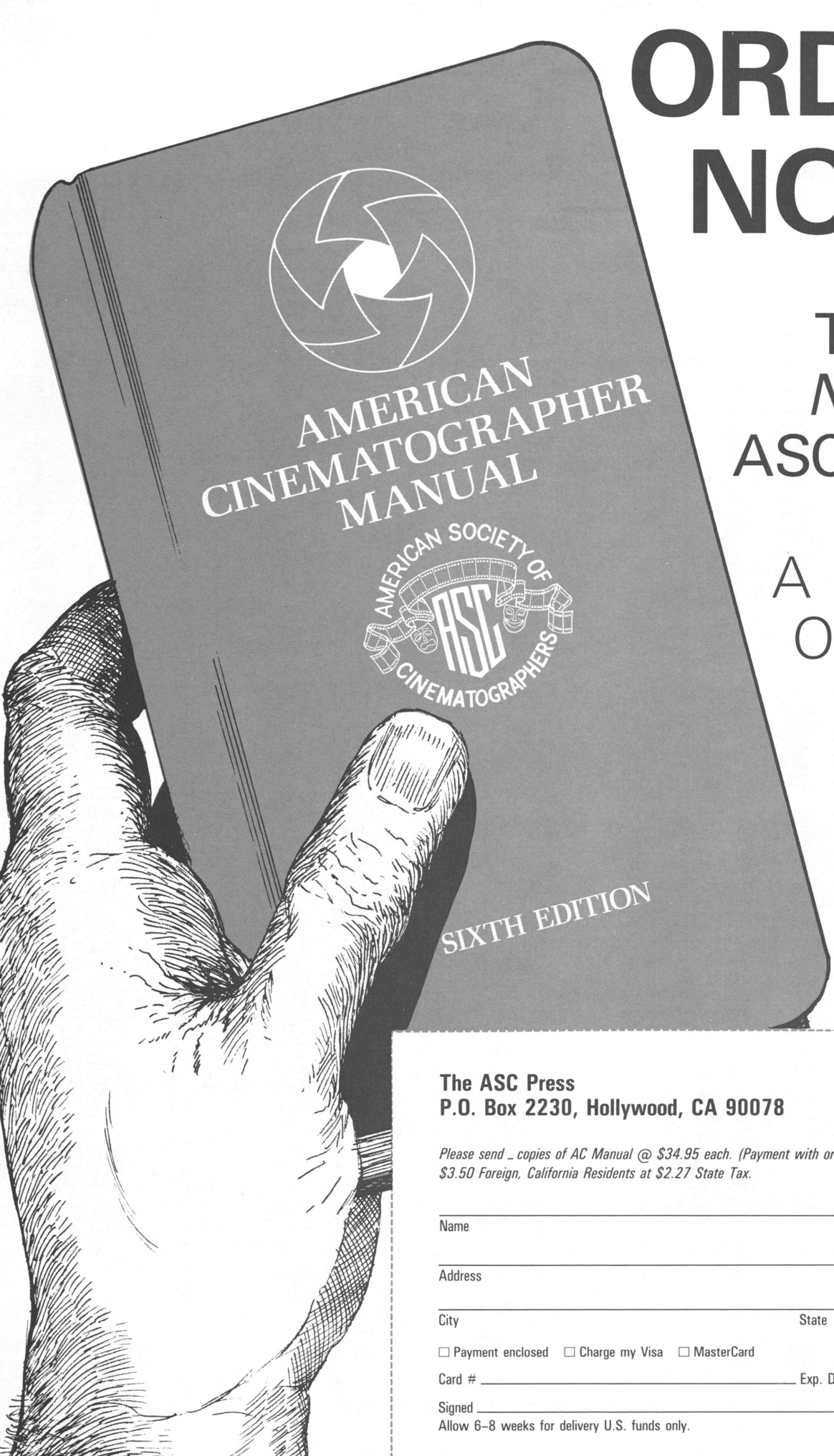
One of the most unpredictable factors was the G-force and the impact it would have on the cockpit-mounted 8mm camcorders. In certain turning maneuvers, the jets go up to nine Gs and suddenly a five pound camera weighs 45 pounds. The stress factor couldn't be simulated in advance to determine how well a camera would stand up to it. "None of us could predict whether the 8mm camcorders could withstand the G forces. As it turned out, it wasn't even a factor," Przyborski stated.

The high-pitched vibration of the jet, however, did prove problematic when the 8mm camcorders were first placed in pods located under the jet wings to capture in-air motion shots. The pods were originally designed to hold 16mm film cameras and were too big to hold the 8mm camcorders snugly in place. The problem was rectified by wrapping each camcorder in foam before remounting it in the pod.

The DXC-3000 CCD chip cameras used for ground shots worked flawlessly throughout the shoot, according to Przyborski. "I was grateful for the camera's ability to maintain perfect registration," a feature that proved particularly important for mountain-top shots. "We didn't want to get up there and find the camera was out of registration.

"The crew videotaped certain portions of the documentary from atop a 4000-foot-high mountain as the planes flew passes directly at them, 50 feet overhead. We were working within an extremely tight shooting schedule so we didn't want to spend time fixing or adjusting equipment, especially if it meant descending from the mountain to do so," Przyborski said. "I had heard from several people that the DXC-3000 camera was inherently stable. Ultimately, we found that to be true."

The Thunderbirds are regularly featured at shows around the country. To produce trails of smoke that spew out of the back of the plane, oil is forced into the jet's hot exhaust. When the jets flew overhead,



ORDER NOW

The *NEW* ASC Manual

A "MUST" ON EVERY SET!

Completely revised by FRED H. DETMERS

$34.95

The ASC Press
P.O. Box 2230, Hollywood, CA 90078

Please send _ copies of AC Manual @ $34.95 each. (Payment with order) Add $2.50 postage in U.S., $3.50 Foreign, California Residents at $2.27 State Tax.

Name

Address

City State Zip

☐ Payment enclosed ☐ Charge my Visa ☐ MasterCard

Card # Exp. Date

Signed

Allow 6–8 weeks for delivery U.S. funds only.

WE'LL BLOW UP YOUR *MOMMA.*

Or any of your Super 16/16mm *babies*. We specialize in feature film enlargement. Also Main & End titles, optical effects and problem solving.

We're located in San Francisco at 1000 Brannan Street, 94103. Just phone us at (415) 626-1100. The quality of our work will blow your mind.

INTERFORMAT
THE BLOW UP SPECIALISTS.

superedit **SE-1600 FLATBEDS**

A high-technology, "avant garde" 16 and SUPER 16 post-production and direct release system/lab.

New Product Release
Low-cost Lab-quality processor for film to video transfer.
Inserted between the camera and the Monitor/VCR, the digital processor electronically synchronizes the film frame images with the NTSC TV standard. Surface mirror and a grainless rear projection screen also provided.
Introductory Price: $695.00

For more information, write to:
SUPEREDIT, 2645 PAULUS, MONTREAL, CANADA H4S 1E9 or telephone: **(514) 334-1449**

VIDEO TAPE LIBRARY LTD.
VTL

(213) 656-4330

VIDEO STOCK FOOTAGE LIBRARY

Thousand of hours of broadcast quality "STOCK" available for your production "NEEDS".

Cities, Sports, Nature, Animals, Seasons, Sunset/Sunrise, Hi-Tech, Aerials, Underwater, Medical, Humor, B/W 1890's-1960's, Americana, Landmarks, Scenics, Action, etc...

1509 N. Crescent Heights Blvd., Suite 2
Los Angeles, California 90046

SENNHEISER
ELMO SONY
Fostex
lowel AKG audio-technica
BOLEX UHER superedit EDITORS
SYNC RECORDERS
Conversions by THE FILM GROUP
dbx JAC CARPENTER (CINE)
SHURE
P.O. BOX 1321
MEADVILLE, PA 16335—0821

the smoke caused some problems for the videographers. "That smoke is as thick as sewing machine oil," Mr. Przyborski recalled. "After the planes flew by us a couple of times, everything was covered with an oily film. We had to clean our lenses quite often."

Much of the shooting accomplished with the DXC-3000 took place on the ground in low-light situations, such as inside a hangar or offices where flight meetings were held. "We used very little additional lighting," Przyborski reported. "Almost the entire project was shot with available lighting. I was very pleased with how light-sensitive the camera was. There's very little noise in that camera."

The flying maneuvers appearing in the documentary may look familiar to those who viewed the popular movie *Top Gun*. The Thunderbirds begin their routines from the Diamond, a tight formation in which they fly four to six feet apart. The pilots launch into what look like daredevil stunts but actually are moves that display combat proficiency. Many of these maneuvers are accomplished very close to the ground – a fact that made capturing them on camera a challenge. At different passes, the jets are flown upside down. Other times the jets do maximum aileron rolls, dizzying stunts in which the jet makes one complete rotation every second.

"Videotaping the planes in action required some of the fastest left and right panning we've ever had to do," said Przyborski. "Especially when the jets came by us at 600 miles per hour."

The production crew consisted of eight people who shot a total of 48, 90-minute Video 8 cartridges with four 8mm camcorders placed on the jets; 29 hours of one-inch tape; and 40, twenty-minute Betacam tapes. The documentary was taped over a period of several months, with 12 days of shooting at Nellis AFB and three days of shooting at Davis Mothan AFB in Tucson. Additional footage was shot in Florida where retired generals were interviewed.

"It's not unusual when taping an air show like this to find yourself shooting into the sun. Normally, that's a problem. However, with the cameras on the ground we had no problems with comet tails or lags. And with the 8mm camcorders in the cockpits we caught some of the most dramatic footage I've seen," Przyborski concluded. △

VideoGram

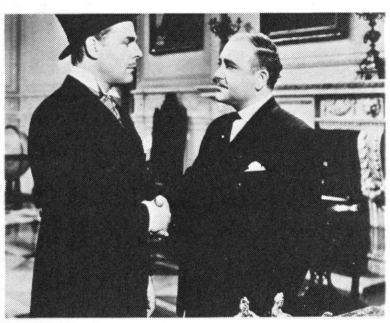
by Mike Maginot

The Wolf at the Door
Produced and directed by Henning Carlsen.
Photographed by Mikael Solomon.

Anthony Quinn won an Oscar for his performance as Paul Gauguin in *Lust For Life.* George Sanders was applauded by critics for his characterization in *The Moon and Sixpence.* Now Donald Sutherland gives a face to Gauguin's complex personality. Sutherland has a knack for playing characters so fascinating that you excuse their amoral actions.

Returning to Paris in 1893, after a two year stay in Tahiti, the artist is seen through the eyes of a young admirer. The script by Christopher Hampton provides cinematographer Solomon with many opportunities to dip into the post-impressionist palette. Paintings by Gauguin, Van Gogh, and Toulouse-Lautrec provide inspiration to the color and composition of individual frames, and frames within frames. Roger Bourland's haunting score provides the soul that Gauguin was said to lack.

• • •



The Great McGinty
Produced by Paul Jones.
Directed by Preston Sturges.
Photographed by William C. Mellor, ASC.

Preston Sturges' premiere directorial effort is finally on video. The first film to win an Oscar for Best Original Screenplay, *The Great McGinty,* is a tall tale disguised as a political satire.

Brian Donlevy is McGinty, a down and out who tries to make a quick buck by voting thirty-six times in a crooked election. Gaining favor with "The Boss," played by Akim Tamiroff, McGinty works his way up from thug, to alderman, to mayor, to governor.

William C. Mellor, ASC, managed to raise the production value with some light and shadow sleight of hand.

• • •

Robocop
Produced by Arne Schmidt.
Directed by Paul Verhoeven.
Photographed by Jost Vacano.

Comic strip heroes and villains, graphic violence, black humor, and combustible special effects are what this movie is about.

Video pause and step-motion will allow the curious viewer an opportunity to analyze the stop-motion annihilations.

Paul Verhoeven has never been a film director who pulls punches. His *Spetters* and *The 4th Man* are testaments to his visual excesses. *Robocop* takes his work out of the cult closet and puts it mainstream.

The ED-209 sequences by Phil Tippett are candidates for the Special Effects Hall of Fame.

• • •

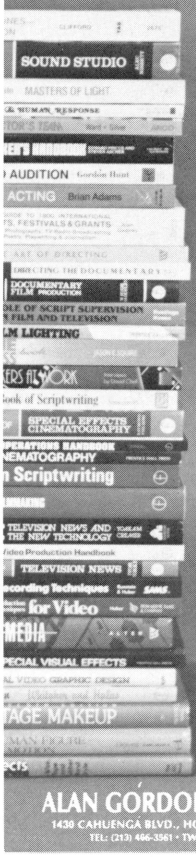
Will Vinton's Best of the Festival of Claymation
Produced and directed by Will Vinton.

Dinosaur film critics, Herb and Rex, who look and sound a little like Siskel and Ebert, are the hosts of this video version of *Vinton's Best.*

Claymation shorts compiled here include "The Great Cognito," "Dinosaur," "Legacy," "The Creation," "Mountain Music," and "The Christmas Gift." Also interspersed within the program are some behind-the-scenes footage of animators with their creations.

This is the perfect companion volume to Vinton's *The Adventures of Mark Twain* and *The Little Prince and Friends.* Vinton's classic "Closed Mondays" can be found on a video called *Academy Award Winning Shorts,* also highly recommended.

KNOWLEDGE STACKS UP!



Our selection of Technical and Craft Books for Film/Video really stacks up. Advance your career by building an educational library and reference resource from over 160 great titles.

- Business of Filmmaking
- Pre-Producttion
- Computer Software
- Production
- Cinematography
- Sound
- Animation
- Special Effects
- Video and TV
- Post-Production
- Writing, Directing, Performing
- Directories
- Operation Manuals

WRITE FOR FREE #6 CATALOG TODAY

ALAN GORDON ENTERPRISES INC.
1430 CAHUENGA BLVD., HOLLYWOOD, CALIFORNIA 90078, USA
TEL: (213) 466-3561 • TWX: 910-321-4526 • FAX: (213) 871-2193

ACG

THE RIGHT CHOICE
BEAUTIFUL LOCATION

SHOOT in TAIWAN R.O.C.

FANTASTIC SAVINGS GREAT SHOOTS
FOR YOU NEXT MOVIE, COMMERCIAL OR MUSIC VIDEO
COMPLETE PRODUCTION SERVICES
EQUIPMENT RENTAL

ARRILITE
ARRIFLEX PANSPHERON
ARRIFLEX-3 35mm 130fps
ANGENIEUX, COOKE ZOOM
PRESISION SPEED CONTROL
TIFFEN, ARRI H.M.I. LIGHTS
ZIESS SUPER SPEEDS LENSES
CRYSTAL HIGH SPEED CONTROL

CALL or WRITE

阿榮企業有限公司
Arrow CINEMATIC GROUP
NO.135, CHOW-CHOU ST., TAIPEI, TAIWAN, R.O.C.
TELEPHONE: (02) 3219743 • 3965340

Sweet Cinema

New Bodies

Bolex EBM w/16-100mm POE-4 Vario Switar $2995.00
Beaulieu RB16 PZ w/17-68mm Angenieux 1795.00
Demo Beaulieu RB16 PZ w/17-68mm Angenieux 1495.00
Beaulieu 200' magazine 405.00
Beaulieu 5008 MS w/6-70mm Optivaron 1120.00

Used Bodies

Bolex EBM w/16-100mm POE-4 Vario Switar $2295.00
Arriflex BL w/12-120mm Angenieux, 400' mag. & matte box 6995.00
Arriflex 16-SB w/12-120mm Angenieux 2995.00
Arriflex 16-SB Body 995.00
Arriflex 35-2-C w/25-250mm Angenieux, 400' mag., vari speed motor 8495.00
Beaulieu R-16 PZ w/17-68mm Angenieux 1095.00
Bolex SBM body 995.00
Beaulieu R-16 body 695.00
Beaulieu 5008 MS w/6-70mm Optivaron 695.00
Beaulieu 3008 w/8-50mm Optivaron 550.00
Eclair ACL w/12-120mm Angenieux & 400' mag. 4950.00

Used Accessories

Arriflex 400' mag. f/Arriflex-S $350.00
Arriflex 400' mag. f/BL 550.00
Arriflex 1200' mag. w/case f/BL . 1500.00
C.P. 400' mag. 250.00
Arriflex torque motor f/Arriflex-S .. 325.00
Arriflex sync motor w/gear set f/BL 195.00
Arriflex variable speed motor f/35-2C 295.00
Bolex torque motor f/ mag. 250.00
Arriflex camera support for BL 150.00
Eclair A.C. Susync motor 24fps ... 250.00
Bolex Unimotor only (As Is) 50.00
Bolex MST motor only 295.00
Bolex power grip for EBM 395.00
Bolex EM motor w/battery & charger 450.00
Bolex Unimotor w/AC adapter 125.00
Bolex Rex-O-Fader 49.00
Canon Barney f/Scoopic w/400' mag. 95.00
Canon Barney f/Scoopic 65.00
Birns & Sawyer Barney f/1200' Arriflex 16 mag. 75.00
B & S Barney f/Arriflex 400' mag. .. 65.00
Quiet Tone Barney f/Beaulieux R-16 w/200' mag. 95.00
B & S Heated Barney f/Arriflex 165 w/400' mag. 195.00
Eclair 400' mag. 695.00
Arriflex magnetic single system sound outfit f/BL 595.00
Canon mag. adapter f/Scoopic ... 295.00
Arriflex 165 matte box 125.00
Bolex 5 piece filter kit f/Rex 5 ..... 25.00
Bolex 4 piece extension tube set .. 50.00
C.P. case holds 3) 400' mag. 75.00

Used equipment is sold subject to your approval and prior sale. Shipping not included.

We accept MasterCard, Visa & Discover card!

HELIX®

310 South Racine Avenue
Chicago, Illinois 60607
312/421-6000
Orders only: 1-800-33HELIX

Classified Ads

RATES

Ads set in lightface type are $1 per word. Text set in **bold face** or capital letters (except first word and advertiser's name) are $1.50 per word. Remittance to cover cost must accompany copy. Send ad to Classified Advertising, American Cinematographer, P.O. Box 2230, Hollywood, CA 90078. Deadline for copy is **first** of **second month** preceding date of issue. Subject matter limited to items and services pertaining to filmmaking and video. Minimum $12 per ad.

EQUIPMENT FOR SALE

USED EQUIPMENT. All brands, all budgets, all on-premises. PRO VIDEO & FILM EQUIPMENT GROUP, Dallas. Call for our free catalog. (214) 869-0011.

CINEMA PRODUCTS XR35mm camera w/tap. 6.1 zoom, 4 mags, 2 batts, 110v power supply, periscope 5" & 13" monitor, ½" deck $20,000. Privately owned (818) 353-6401.

SANDSHOT BAGS made to order with your color combos, good prices (612) 522-3509.

PROFESSIONAL POLAROID STILL CAMERAS FOR EXPOSURE & LIGHTING PREVIEW featuring adjustable aperture/shutter speeds & high quality coated optics. Used by cinematographers world wide. Several models to choose from, call or write for brochure. FOUR DESIGNS CO. 6531 Gross Ave., Canoga Park CA 91307. CA (818) 716-8540 Outside CA (800) 544-3746. (please call for tech info).

WE ARE THE LARGEST PURVEYORS OF USED EQUIPMENT IN THE MIDWEST. Buy, sell or consign with confidence. Our free newsletter is available on request. PRO VIDEO & FILM EQUIPMENT GROUP, Dallas. (214) 869-0011

2 MOLE 12K HMI w/new style ballast $11,000 ea. Other lighting & grip equipment. PC&E–Chuck (404) 458-8267.

16mm U/W CAMERA: Kodak K-100 w/5.9mm f1.8 Ang lens in custom cast aluminum housing. All excellent $3,000 OBO. FLIP SCHULKE (305) 251-7717.

OXBERRY master series animation stand $22,000. 55mm/26mm lens & focus cams, electric 12 field platen, floating peg bar, 35mm shuttle/sprocket. Contact Art at ANIMAGINATION INC. (414) 835-4448.

FILM LIBRARY FOR SALE. 16. Documentary. Personal. Vintage. Current. High adventure. Worldwide. Nature. Peoples. Customs. Aerials. Planes. Steam trains. Rare subjects. Wild sound efx. Audio taped timed narration for 24 episodes. More episodes also. On site literature. Can narrate. Intended for a series. Offers. STUART JEWELL 2040 Garden Lane, Costa Mesa, CA 92627.

NEED USED (or new) EQUIPMENT? We have it, or we'll find it. Call Bill Reiter or Norm Bleicher at PRO VIDEO & FILM EQUIPMENT GROUP, Dallas. (214) 869-0011.

ARRI SR, COMPLETE, MINT COND. 10-150 Ang, 5.9 Ang, filters, HMI speed control, J4, Sachler support system, $27,500 or offer (313) 851-2579.

EQUIPMENT FOR SALE

SURPLUS EQUIPMENT: Arri-SR pkg. $20,000. Arri S pkg. $2,950. 16mm Mitchell pkg. $7,500. Nagra IV-L $4,000. Nagra 4.2 $4,200. For detailed description & price information, call CENTRON PRODUCTIONS, INC. Lawrence, KS 66044 (913) 843-0400.

USED & RECONDITIONED OXBERRYS, world-wide, animation stands, master series & filmmakers. Optical printers, 1200, 1500, 1700, 1900 series all with aerial heads in our 30th year of selling & maintaining exclusively Oxberry. We also manufacture new liquitech wet gates with adjustable stroke for shrunken stock. The world's most widely accepted wet gate. PHOTOGRAPHIC EQUIPMENT SERVICE INC., 165 Huguenot Street, New Rochelle, NY 10801, USA. (914) 235-2720.

25-250 Cooke zoom MKI complete w/bracketry & case $12,000. 10-150 Ang zoom Arri B mount $1,600. 9.5-57 Ang zoom Arri B mount $1,800. CEI UPI video assist package $2,200. (213) 469-2774.

MAGNASYNC 35mm reproducer, 6 track, solid state w/selsyn motor, rack mounted $1,000. AVPS (313) 583-0557.

STEENBECK ST 1901 FOR SALE new, 16mm & super 16, 6 plate, 1985 model. Extras: stereo, digital counter, rewinder, optical sound, for info call (718) 261-5898.

ARRI 16-SR, Aaton LTR-54, Ikegami HL-79EAL, KEM 8 plate, Sony 5850 editing system. We *have* what you need. PRO VIDEO & FILM EQUIPMENT GROUP. (214) 869-0011. Free catalog.

B&H HR 16mm camera w/3 lens turret & Ang lenses. Excellent cond $1,700. (904) 224-2888.

SONY WM-D6C w/xlr, xtal recorder by Film Group, excellent $600. (415) 387-8457.

GENERATOR VAN 350 amp blimped, crystal generator installed in extra heavy duty van. Excellent cond. (305) 751-4938.

OXBERRY MASTER SERIES ANIMATION STAND. 12/16 field registration. 55mm, 28mm Nikors. 16, 35mm components. Bipack 35mm mag, 16mm mag. Cinetron 800B computer & motors controlling full 8 axis, bottom light, late model camera $38,000. FOROX COMPOUND ANIMATION STAND, custom built dual 8.5 foot column, overly built, Forox compound has geared rotational ring, $4,500. HORIZONTAL BOOM ARM RAIL motion control system, 30' of precision Thomson shafted track, 5' center column, 4' up/down movement, adjustable length boom arm, modified pan/tilt gear head w/stepper motors & Durant position counters, all motors & cables, (no computer) very rigid system, perfect for model & matt work, $13,900. BELL&HOWELL 35MM EYEMO 25, 35, 152mm lenses, 12-24 motor, hand crank, case, open back for mags, $450. FF2000 B&W 35MM MATT PROCESSOR, for developing hi-con & continuous tone B&W stock, 200' loads, $1,200. BOLEX REX 5, 16mm Switar, Rexofader, extras, case $550. BOLEX REX 4, vario switar 18-86mm auto exp. zoom, Rexofader, pistol grip, extras, case $500. (818) 905-5231.

MOVIOLA model SYAZA-R, 16/35 synchronizer (used) $250. Mag/Moviola model SYE 5 gang 35mm w/mag head, (new) $600. AVPS (313) 583-0557.

STUDIO rig for CP 16R w/follow focus assembly $1,400. CP 16R camera w/Ang 12-120 lens, mags, chargers, new batts, new case, 90 day warranty, fully rebuilt, 170 degree shutter, $5,250. Sound barney for CP 16R $200. Set of Ultra T primes 9-12.5-16 & 25mm w/CP, CA 1 or Arri B mounts $3,750. Many other items available. Call Derrick at Whitehouse A.V. (213) 479-8313.

NAGRA STEREO, excellent cond, reasonable price (213) 386-2134.

EQUIPMENT FOR SALE

BOLEX model EBM 16mm camera, power handle, batt, charger, mint cond $1,995. Arri S 16mm camera, Pan Cinor 17.5-70mm F/2.4 zoom lens, batt pack charger, case, V/S motor, 400′ mag $1,595. Beaulieu R16 camera, case, 3 Switar lenses, power handgrip, 2-50MA batts $1,095. Arriflex 16mm BL camera, ANG 12-120mm F/2.2, 2 400′ mag, batt pack, charger, case $5,595. Bell&Howell 70KRM-1 16mm camera, 3 primes, 400′ mag, 120 volt 8-64 FPS motor, case $425. Arriflex 16mm M camera, 2 400′ mags, variable speed motor, 3 prime lenses $1,995. Bolex 16 Pro-100 camera, Ang zoom 12-120mm F/2.2, equipped for single system sound, coaxial mag, aluminum case, charger, 2 batts, control box, mic amplifier, mint $2,995. ARRIFLEX 16S camera, 3 Xenon lenses, V/S motor, batt, charger, 400′ mag, torque motor, aluminum case $1,895. Cine Special II 16mm camera, 100′ mag, 15mm F/2.7 & 1" F/1.4 lens, case, mint $595. Bolex H16 Reflex V, 3 primes, Rex fader, case $1,795. Bolex Rex H 16mm camera, 3 lenses, case (reflex viewing) $795. Bolex H 16mm camera, 3 lenses, case (non-reflex) $195. Arriflex 16mm M camera, Pan Cinor, 24-100mm zoom lens, 2 400′ mags, constant speed motor $2,195. Bell&Howell 70 KRM-1 16mm camera, 3 lens turret, 2 mags, zoom lens, 12 volt, 8-64 FPS motor $795. Auricon blimp w/sync motor for Cine Special, Mitchell viewfinder $495. Arri S camera, 3 primes, V/S motor, 400′ mag, torque motor, Haliburton case $1,395. Kodak K100, 3 lens C mount turret 16mm camera, 3 primes $195. Bolex H 16mm Reflex IV, 3 prime lenses, motor, Rex Fader, Haliburton case $1,495. Frezzi 16mm single system sound camera, case 17.5-85 zoom lens $450. Frezzi 16mm single system sound camera, 9.5-57mm Ang zoom lens, heavy duty anvil case 4 400′ mags (as is) $595. Bolex H 16 Rex IV, body only, mint in original box $1,195. Canon Scoopic 16 camera w/Canon zoom lens 13-76mm F/1.6 & 3 Nicad batts, aluminum carrying case & batt charger $595. Bolex 16mm Reflex model IV w/12-120 Ang zoom, aluminum case, mint $1,895. Arri S camera, 2 mags, torque motor, Canon 10-120 zoom, Halliburton case & other access, mint $2,495. Palmer 16mm interlock projector, mint $1,295. Bell&Howell 71Q 35mm camera, spyder turret, 4 lenses 2 400′ mags, 2 cases $995. Maier/Hancock model 816 16-8mm hot film splicer $175. Showcron 16mm 6 plate flat bed editor, excellent $3,495. Zeiss Moviscop 16mm viewer $250. Moviola M79B 4 gang 16mm synchronizer w/3 sound heads, amplifier & viewer $995. Moviola 4 gang 16mm synchronizer w/1 sound head & Moviola model URS amplifier speaker $350. Moviola 16mm long shaft rewinds, pair $195. Moviola 4 gang synchronizer 35mm model SYD $375. Moviola 4 gang synchronizer 35mm model SYD w/2 sound heads & volume pots $450. 35mm model SYBZB-A combination 2-35mm & 2-16mm synchronizer $375. B&H 35-16mm hot splicer $250. Moviola model SYD 35mm synchronizer w/4 sound heads & individual volume pots & Moviola model 1800 amplifier speaker $595. Ang 12-120mm f/2.2 zoom lens w/C mount & side finder $1,595. Ang 9.5-95mm f/2.2 zoom lens w/C mount & side finder $1,295. Kilfit 300mm F/5.6 telephoto lens w/Arri S mount $495. Miller model 104 fluid head, case & aluminum legs $750. NCE tripod (wood) model C head w/leveling bowl & case $450. Arri tripod, head, & case excell $295. NCE wood leg tripod w/ball leveling mount, no head $125. Auricon heavy duty wood leg tripod w/friction head $295. Bolex aluminum tripod & head w/quick release $235. Birns&Sawyer collapsible tripod dolly $250. Arri sound module amplifier, cables, magnetic head for 16mm BL single system sound $495. Our "Spring House Cleaning" list is in the mail. Send for it if you are not on our mailing list. Prices reduced as much as 50%. I buy, sell & trade & need Arri 16BLs, guillotine splicers, 35mm cameras, W.A. lenses, etc. JAMES E. WEBSTER, PO Box 5126, Chattanooga, TN 37406, (615) 622-1193, nights (615) 238-4818.

ARRI 16BL w/12-120, original case, 400′ mag, batt pack, access, all excellent $3,150. (415) 322-3390.

2 VIDEO ASSISTS for Fries 35R/35R3 cameras w/RCA TC2521U video cameras, **EXCELLENT COND** Call (213) 851-9545.

CANON Scoopic 16mm w/batts, charger, filters, 12.5-75 macrozoom lens plus w. angle lens, mint $750. Call ERNEST (804) 644-9746.

ARRI BL 2 1000′ mags $4,000. BL zoom blimp 6:1/5:1 $3,000. Arri 2B, 400s, lens set $3,200. Extenders (2x & 1.6x) for Ang, 25-250mm $250ea. CP-16 pkg w/10-150mm $5,000. Arri 35BL videotap $4,000. Arri 16BL, 9.5-95mm, 3 mags, 2 belts $5,000. **OPPENHEIMER CAMERA** (206) 467-8666.

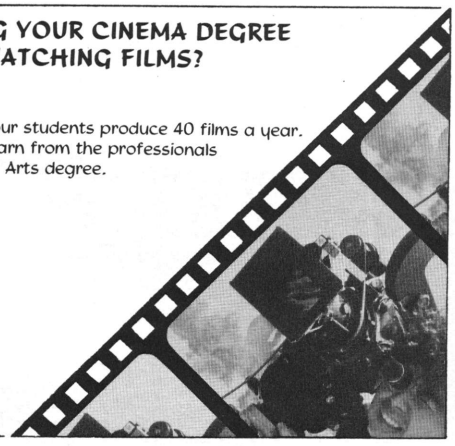
TELEVISION CINEMA COMPUTER GRAPHICS

ARE YOU EARNING YOUR CINEMA DEGREE BY JUST WATCHING FILMS?

At Columbia College our students produce 40 films a year. Study in Hollywood and learn from the professionals while earning your Bachelor of Arts degree.

COLUMBIA COLLEGE
925 N. La Brea Avenue
Hollywood, California 90038
(213) 851-0550

Financial Aid Available



QUALITY LENS SERVICE

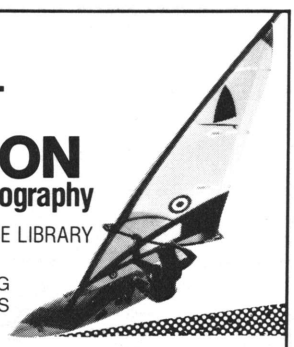
Fujinon ■ Canon ■ Angenieux ■ Cooke ■ Zeiss ■ Schneider ■ Etc.

Now Available From:

WHITEHOUSE AUDIO VISUAL
11511 West Pico Boulevard
Los Angeles, CA 90064 (213) 479-8313

DAN MERKEL MEANS ACTION
Water Photography

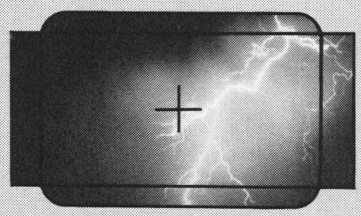
STOCK FOOTAGE LIBRARY
SURFING
SAILBOARDING
OCEAN WAVES
AND MORE!



(805) 648-6448 / Local 659
Box 722, Carpinteria, CA 93013

RON SAWADE
CINEMATOGRAPHY

STOCK FOOTAGE



THE NEW LIBRARY

CITIES
CLOUDS
SCENICS
SLOW-MOTION
EAGLES
SUNSETS
LIGHTNING
TIME LAPSE

818-769-1737

VISTASCOPE CORPORATION
Wide Screen Theatre Systems
1231 Booth Street ♦ Atlanta, Georgia 30318 • (404) 351-3618

48ft. MOBILE CINEMA, with 24ft. SCREEN
HELICOPTER CINEMATOGRAPHY
"TO FLY" and "FLYERS" in VISTASCOPE

VISTASCOPE 2 perf, PRODUCTION
.367
.980
EDITING—PROJECTORS

DON'T LOSE YOUR HEAD!

We will renew your Fluid Head and overhaul it completely to be BETTER THAN NEW!
Write or call us for our super fast service and low prices.

2025 N.E. 151st St.
No. Miami Beach, FL 33162
(305) 949-9084,9085

NCE OF FLORIDA, INC.

TEXCAM INC.

Covers the state with offices in Dallas and Houston. TEXCAM can quickly respond to your needs with the latest in Arri 35 BL-4 • Zeiss Primes • Arri 35-3 • Cooke Zooms • Sachtler • Tiffen • Arri SRII • Micro Force • Tyler • Mitchell • Canon • Cinematography Electronics • CEI • Jürgen's • G&M Power Products • Harrison & Harrison • O'Connor • Angenieux • Worrall • Arri BL-3 • Ronford • II-C PL • Century

Rental and Sales

TEXCAM INC.
3263 Branard
Houston, TX 77098
713-524-2774

TEXCAM, INC.
3226 Irving Blvd.
Dallas, TX 75247
214-630-1487

ENERGY PRODUCTIONS
TIMESCAPE™
LIBRARY
ENERGY PRODUCTIONS
2690 BEACHWOOD DRIVE
LOS ANGELES, CA 90068

- Skyscapes
- Cityscapes
- Landscapes
- Special Effects
- Aerial Scenics
- Lightning
- Landmarks
- Underwater
- Computer Graphics

Over 500,000 feet of production-ready images available on all formats. FREE CATALOG

213.462.3310

William Sound Service, Inc.
introduces
THE TRUE FRAME SYSTEM℠
The System that gives you the whole truth

The TRUE FRAME SYSTEM℠ offers you the most technically advanced, expedient and cost-effective way to handle your film's post production.

The TRUE FRAME SYSTEM℠ transfers your camera original and 1/4" production soundtrack to 1/2" or 3/4" videotape complete with a time code window at 30 frames per second.

The TRUE FRAME SYSTEM℠ is the only system that also gives you a separate window with your ORIGINAL KEY NUMBERS AT 24 FRAMES PER SECOND (16 frames per foot) all simultaneously programmed onto your 3/4" videotape. This gives your editor the security needed to edit comfortably with assurance of problem-free negative cutting.

WILLIAM SOUND SERVICE, INC.
(213) 461-5321

LARRY EDMUNDS
BOOKSHOP, INC.
"World's Largest Collection of Books on the Cinema & Theatre"
NEW AND OUT-OF-PRINT
MEMORABILIA-POSTERS-STILLS
World-Wide Phone & Mail Orders
VISA/MASTERCARD BOOK LIST AVAILABLE
6658 Hollywood Boulevard, Hollywood CA 90028
Phone (213) 463-3273
Also at the 'Actors Center'
11969 Ventura Boulevard, Studio City CA 91604
Phone (818) 508-7511

16mm Super—8
Color Reversal Processing
VNF-ME4-ECO
B/W Reversal Processing
Same Day Service
Duplicate Prints
Video Transfer
Write or Call for Price List
YALE LABORATORY
1509 N. Gordon Street
Hollywood, CA 90028
(213) 464-6181

MAGIC BOXES
ALL 2x3x4" SMALL! FOR *YOUR* BAG.
FLICKER TRICK: SIMULATE FIRELIGHT, TV SET, STROBE, WITH ANY TUNGSTEN LAMP.
WEE WILL DIMMER: 2 KW FULL RANGE DIMMING, EVEN DOES SOME NEONS.
WEE DC DIMMER: 10 A DIMMER FOR AUTO LIGHTS, ELECTRONIC EQUIPMENT SUPPLY.
PRACTICAL SWITCH: SLAVES STUDIO LIGHTS OR EQUIPMENT TO A PRACTICAL . . . ON CUE.
FIVE K DIMMER: WOW! 50 AMP, 120 V DIMMER.
MULTI-INTERFACE: USE UP TO 50 WEE WILL DIMMERS WITH FLICKER TRICK, ETC.
SOFTSWITCH: REPLACE YOUR POWER SWITCH AND SAVE BULBS. DIMMER INCLUDED.
MORE MAGIC BOXES & STUFF, WRITE OR CALL:
WILLIAM MCINTIRE ENTERPRISES
PO BOX 4244, Portland, OR 97208 **(503) 286-4193**

WE BUY
Film Stock
Video Cassettes
TOP CASH
PLUS 50% OF SHIPPING
RAFIK (212) 475 7884
814 BROADWAY NEW YORK NY 10003

16MM CINE EQUIPMENT
Specializing in Selected New and Used
BOLEX • B&H • BEAULIEU • CANON • KODAK
Cameras and Accessories
Write or Call for Complete Listing
CHAMBLESS CINE EQUIPMENT
2488 Jewel Street • Atlanta, GA 30344
404-767-5210

CANADA'S LARGEST
LAB AND SOUND
FULL SERVICE
ORGANIZATION
BELLEVUE Pathé

MONTREAL
2000 Northcliffe Ave
Montreal Que H4A 3K5
Tel 514-484-1186

TORONTO
720 King St West
Toronto Ont M5V 2T3
Tel 416-364-3894

Pathé Sound Studios
121 St Patrick St
Toronto Ont M5T 1V3
Tel 416-598-2521

*A DIVISION OF ASTRAL BELLEVUE PATHÉ LTD./LTÉE

Don't Bring Your Gear To Seattle.
Rent it at the Northwest's only full-service camera rental house.
Rental/Sales/Service
206 467-8666
OPPENHEIMER CAMERA

EQUIPMENT FOR SALE

NAGRA III mint classic. One owner (German technician), low mileage, 60 sync, leather case, spare new motor, heads, schematics (Deutsch), cables, $2,400 or offer. MEDIA (202) 483-4823.

ARRIFLEX 16S, 3 Schneider primes, Ang 12-120 lens 2 400' mags, variable speed motor, case $3,500. (913) 649-4868.

3 ANG 12-120 zoom lenses, Arri bayonet mount, rebuilt, excellent cond $500ea. 2 arri S mags w/torque motors, almost new $500ea. PROF. OPTICS, 6327 So. Orange Ave, Orlando, FL 32809. (305) 826-0618.

ECLAIR NPR, 3 mags, Ang 12-120, 2 sync non-crystal motors, cases, good condition $2,500. ROSS (804) 295-0262.

MITCHELL access, mags, matte boxes, & motors. O'Connor 100 heads, Cooke & Ang zooms. **ARRI S** package 16BL sound module, 35BL 1000' mags, 6.1 BL blimp housing, matte boxes, filters, & more. **LEONETTI CINE RENTALS** (213) 469-2987.

SINGLE FRAME/time-lapse/animation unit for Arri S or M $475 USD (403) 289-9892.

MITCHELL GC rackover mint cond $6,000. Eymo Spyder turret camera $700. HFC 35/16 hot splicer like new $200. (707) 763-0647.

MAGNA-TECH MR-436 16/35mm recorder w/type 68 record amplifier $3,500. Swintek Mk 4-50 wireless mike system $400. Rycote WM-415 windscreen for MKH-416 w/sock $150. CHICAGO AUDIO WORKS, INC. (312) 327-5533.

CP 16R/A 16mm camera 12-120 zoom, mags, amp, meter, case tripod & more $4,500/**OFFER** CONTACT RUSS (916) 638-4136.

ECLAIR NPR Beala crystal motor, Ang orientable finder, 2 mags, 12-120 Ang zoom, Eclair/Nikon adapter, Haliburton case, filters & access, $4,000. **RICHARD SEARLS** (207) 474-9339.

ARRI 6K HMI RECONDITIONED, HEAD, BARNDOOR, BALLAST, CABLE & BULB $5,000. Contact MIKE ANDREWS (212) 245-4800.

ARRIFLEX 2C camera, 2 motors, flat base, 5 mags, filters, Ang 25-250mm zoom, more $10,500. (818) 762-0200.

DON'T MISS YOUR CHANCE Ask for cameras like Bolex, prime & zoom lenses, motors, mags, sync. equip, tripods, projectors, filters or whatever you might need. Save big Dollars & call INTER-CINE-VIDEO CORP. at (312) 872-1665.

WANTED

WANTED: USED LIGHTING, VIDEO, FILM, AUDIO, OPTICS, TRIPODS. WE BUY, TRADE, CONSIGN, SELL, LIQUIDATE. LEASE BUY BACKS. PRO VIDEO & FILM EQUIPMENT GROUP, DALLAS. (214) 869-0011.

WANTED: Kodak analyst projectors 16mm silent. NATIONAL FILM CO. 10302 Kingspoint, Houston 77075.

WANTED: Cameras 35mm & 16mm, sound equipment, fluid heads, editing, lighting, etc. Best cash prices paid. Consignment also available. Contact Pete Anway or Matt Barr, BIRNS & SAWYER, INC, 1026 N. Highland Ave., Hollywood, CA 90038. (213) 466-8211.

CINEMATOGRAPHERS: Major stock footage company is looking for beautiful images to represent. (213) 850-1996.

WANTED Professional motion picture equipment, 16mm & 35mm, cameras, lenses, lights, sound, editing, projection, lab, for outright purchase or consignment. Supply complete technical description & price for immediate reply. Ted Lane, ALAN GORDON ENTERPRISES, INC, 1430 N. Cahuenga, Hollywood, CA 90028 (213) 466-3561.

WANTED: STEADICAMS, CP-16R CAMERAS, ARRI SR, 35BLS, ARRI IIC & IIIs, O'CONNOR, SACHTLER, MILLER FLUID HEADS & TRIPODS, PRIME & ZOOM LENSES, NAGRAS, FOR CASH CONSIGNMENT OR TRADE. CALL DERRICK AT WHITEHOUSE A.V. (213) 479-8313.

WANTED Crawford 400 or 500 generator in excellent cond (305) 751-4938.

WANTED

WANTED Mitchell 35mm high speed cameras & camera parts for models GC, GCS, D, TA, & also Cinerama HS35. Contact FRIES ENGINEERING, INC, 12032 Vose St, N Hollywood, CA 91605. Tel (818) 765-3600.

WANTED: Bell&Howell 16mm cameras & access, Ang zoom lenses, NATIONAL FILM, 10302 Kingspoint, Houston, TX 77075.

UNDER-UTILIZED EQUIPMENT SITTING AROUND? CONSIGN OR SELL YOUR UNUSED PRODUCTION EQUIPMENT TO PRO VIDEO & FILM EQUIPMENT GROUP, Dallas. Call (214) 869-0011.

ANOTHER era? Film wanted of Boston's elevated trains, 1920s to 1960s. Any gauge-color, pan. Write GENE DONNE, Box 679, Roxbury, MA 02119.

JUNK cameras, shells, parts, worn-out, damaged, parts missing. Auricon, Bolex, Cineflex, Cine-Special, DeVry, Mitchell, Walls, etc. Double 8 perf, Die-blocks. Govt surplus 70mm type I neg-pos film. MICHAEL (717) 689-2337

ECLAIR ACL body, French. ROSS (804) 295-0262.

SERVICES AVAILABLE

BATTERY REBUILDERS all types. Film, video, photographic, strobe. CHAMBLESS CINE EQUIPMENT, 2488 Jewel, Atlanta, GA 30344. (404) 767-5210. Free catalog.

TIMELAPSE, TIMELAPSE, TIMELAPSE, TIMELAPSE, TIMELAPSE, TIMELAPSE. Other stock footage. Nature. Aerials. Foreign. Peoples. Customs. Rituals. Landscapes. Rare. Introspective descriptions. For all scenes. 40 years. **EXPERIENCE instead of EXPERIMENTS.** STUART JEWELL, 2040 Garden Lane, Costa Mesa, CA 92627. (714) 548-7234.

CANON, FUJINON, ANGENIEUX, ZEISS, COOKE, SCHNEIDER, FILM & VIDEO LENS REPAIR. OPTICAL ELECTRO HOUSE (213) 204-6577

QUALITY CAMERA SERVICE: Complete repair & machine shop, parts department & top experienced technicians are available at Birns & Sawyer, Inc. to service your camera, lenses, tripods, & related equipment. Send in your equipment for an estimate to our service dept. Call (213) 466-8211, Peter Anway, BIRNS & SAWYER, INC, 1026 N. Highland Ave, Hollywood, CA 90038.

ECLAIR-BOLEX-AATON FACTORY TRAINED SERVICE, USED EQUIPMENT & ACCESSORIES AVAILABLE AT PROCAM, 905 NORTH COLE AVENUE, HOLLYWOOD, CA 90038. PHONE (213) 464-2125.

SURPLUS CAMERAS & LENSES WANTED. Send us your tired, your worn 16mm & 35mm Mitchells yearning to be turned into cash. We are also looking for good used 35mm Arris & other fine cameras. We find buyers for surplus equipment. Contact Jeff at (818) 766-3715. CENTURY PRECISION OPTICS, 10713 Burbank Blvd, No. Hollywood, CA 91601.

BETACAM VIDEO PRODUCTION CREW & RENTALS. ST LOUIS BASED RAINBOW IMAGES (314) 894-5536.

OFF-LINE? Edit on VHS! $80 day, $320 week. (213) 739-4801.

RAILROAD stock video. Window dub demo $10. PO Box 4, Campbelltown, PA, 17010. (717) 838-3668.

TECHNICAL SERVICES FOR MOTION PICTURE EQUIPMENT. Industrial Design. Prototypes. Machine Shop Service. Plastics Engineering **HAAS DESIGN GROUP.** (818) 240-7513 or (213) 874-0250.

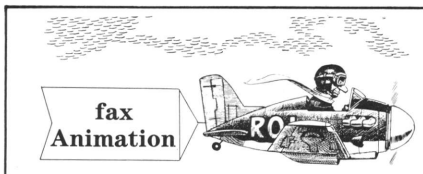
BOLEX ACCESSORIES

- 24-Frame Sync. Camera motor 115V
- Va. Speed Battery Camera motor 24V
- 400-ft. Magazine w/400' counter in camera
- Intervaltimer—Range 1½ sec. to 36 min.
- Animation motor. Fits all H-16 models

(714) 650-7299

Write for Bolex Accessory Catalog

STEVENS
402 KINGS RD.
NEWPORT BEACH, CA 92663



Our superior line of Fax Animation Equipment and Supplies includes stands, drawing disks, peg bars, cels, bar sheets, inking boards, paint, Technical & Craft books, the EOS Animation Video Controller and more! Call or visit:

Fax Animation Equipment

A Division of Alan Gordon Enterprises, Inc.

1430 CAHUENGA BLVD., HOLLYWOOD, CALIFORNIA 90078, USA
TEL: (213) 466-3561 • TWX: 910-321-4526 • FAX: (213) 871-2193

SHOOT IN SACRAMENTO!

From Sacramento we cover the West quite effortlessly! We are equipped with a complete BetaCam system and have 16MM & 35MM film packages available. Location shooting with grip truck or complete studio set up. Our crews are seasoned and available! **You tell us what you want!**

For more information call:

JWM PRODUCTIONS
(916) 457-3411

EXCLUSIVE SOURCE FOR THE COOKE LENS.

ZGC is America's exclusive distributor of Cooke 16mm camera lenses. And the exclusive distributor of Cooke 35mm lenses in the eastern ⅔ of the country.

We also provide expert maintenance of your Cooke lenses by a factory trained optical specialist. Call or write Les Zellan for a FREE catalogue.

ZGC, Inc.
57 Plymouth Street
Montclair, NJ 07042
212/629-6246 201/746-4428

BEAUTIFUL FILM FOR SALE

INCREDIBLE AERIALS: Cities, National Parks, Natural Scenics.
NATURE'S MAGIC: Sunsets, Clouds, Unbelievable Waves, Seagulls.
ESTHETIC SPORTS: Windsurfing, Hang Gliding, Sailing, Ballooning, Flying, Skiing, Surfing, Skateboarding, Dune Buggying.

MACGILLIVRAY FREEMAN FILM LIBRARY
Box 205, S. Laguna, CA 92677
714/494-1055

Our credits include: "Jonathan Livingston Seagull," "The Shining," "To Fly," "Behold Hawaii," "Big Wednesday" and many more.

Dreamlight IMAGES

Explore the magical imagery within our

STOCK FOOTAGE LIBRARY

Production ready elements in all formats:
TIME-LAPSE, HIGH-SPEED, MACRO, MICRO, REAL-TIME:
suns, clouds, moons, flowers, cities, aerials, effects, underwater, vintage, nature, wildlife, sports, etc.

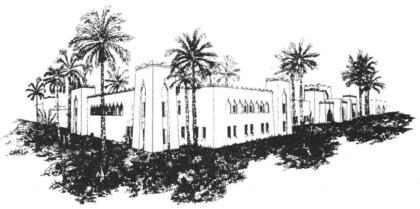
FREE CATALOG

932 North La Brea Ave., Suite-C
Hollywood, CA 90038

213-850-1996

Atlas Corporation Studios

presents
"ESPACES CINEMATOGRAPHIQUES"
of Ouarzazate, Morocco



You can find :
A complete image library including :
villages, deserts, Kasbah, traditional houses, etc . . .

General information and price list for :
construction materials, movie equipment.

Technical equipment available :
Landrover for scouting - Electrical generators - Stainless steel tanks - Wind machines - Mobile homes - Trucks

Office space with telephone and telex, carpenters workshop, plastering plumbing, painting.
Hotel reservation : a service throughout the country in the "SALAM HOTELS" finest 4 and 5 star hotels.
Catering service.

Contact :
in France
59, rue Saint-Didier - 75116 PARIS
Tel. (33) 1 47 55 09 09
Telex 648224 F - Fax 47 55 08 32

in Morocco
Boulevard Mohamed V - OUARZAZATE, Morocco
Tel. : (212) 88 22 06 - 88 24 16 - 88 23 93
Telex : 740 49

NTL
★FREE★
16MM EDGE NUMBERING
WITH DEVELOP & PRINT
AT NEWSFILM LAB
LIMITED SPECIAL!
NEWSFILM LABORATORY, INC.
516 No. Larchmont Boulevard
Hollywood, CA 90004
(213) 462-6814

CINE SOUND 5
SOUND PRODUCTION EQUIPMENT
SALES • SERVICE • RENTAL
Dealers for:
MICROPHONES: AKG, Neumann, Schoeps, Shure, Sony, Tram, Sennheiser, Beyer • WIRELESS: Micron, Vega, Sony, Audio Ltd. • MIXERS: Sony, Shure, 6 Input Mono By AVD • RECORDERS: Used Nagras, TC-DSM, WM-D6, PMD-430, UHER, By Film Group • MIC. POLES: LTM, LWS, Micron • Video Transmitters • Power Supplies • Electronic Slates • Beyer Head Sets • Windscreens, Shock Mounts By LWS • Kangaroo Cases
King Walkie-Talkies • Etc.
We also Buy, Trade and Sell Used Nagra, Vega Micron, Sennheiser, etc.
We Rent New Motorola Walkie Talkies
SAVE MONEY.....BUY FROM US
3815½ W. Burbank Boulevard
Burbank, CA 91505
(818) 845-6496 — (818) 348-9403

PHENOMENAL FOOTAGE.
It's just a phone call away. Footage from silent films, feature films, newsreels, documentaries, industrial films and more. Fully cleared for use in your productions.
Our computerized system assures fast access. Call or write for a free brochure and sample reel.
Archive Film
Productions, Inc.
Stock Footage Library
212/620-3955
Dept. AC, 530 West 25th Street New York, NY 10001 USA
Fax 212/645-2137 Telex: 822023

BABYLON POST
Telecine · Dailies
35mm Edge Numbering

213·460·4088
6671 Sunset Blvd. #1583, Hollywood, CA 90028

MOTION MEDIA
16mm Magnetic Film Transfers
Sync, Wild, ¼", or cassette . . $16 - hr
Mag Film Stock . . . . . $.04 - ft
Fast Service by Mail
Write or call;
203 W Holly · Suite M15 · Bellingham Wa
(206) 676-2528 98225

Don't shoot your budget...
SHOOT IN MEXICO!
All the information you'll need to film in Mexico!
684-08-69 (Direct) Mexico City
533-47-34 (Night) Mexico City
684-08-69 (FAX) Mexico City
713-668-2717 (U.S.)
CINE SOUTH de Mexico
Contact: MARK PITTMAN

SUPER BALTAR LENSES
We have the only remaining inventory of BRAND NEW Super Baltars, from 20mm to 152mm in the world todate! Write us or call for prices.
2025 N.E. 151st St.
No. Miami Beach, FL 33162
(305) 949-9084,9085
NCE OF FLORIDA, INC.

Advertiser Index

A/T Scharff: 63
Aaron Marketing Assoc: 12
Agfa-Gevaert: 13
Alan Gordon: 16, 107, 111
Anderson, Howard A: 56
American Cinemeditor: 105
Apogee Inc.: 37
Archive Film Prods: 112
Arriflex: 15
Arrow Cinematic Group: 107
Atlas Corp. Studios: 111

Babylon Post: 112
Band Pro Film/Video: 34
Barbizon Electric: 82
Bellevue Pathé: 110
Birns & Sawyer: 19, 22
Bogen Photo Corp.: 34

Camera Department, The: 16
Camera Mart: 4
Camera Platforms Int'l.: 115
Camera Service Center: 21
Cannom Creations: 20
Carpenter Sales: 106
Century Precision Optics: 7
Chambless Productions: 110
Cine: 60, 18
Cine Sound 5: 112
Cine South: 112
Cine Video: 23
Cinema Electronics: 71
Cinema Products: 81
Cinematography Electronics: 18
Cinequipt: 30
Clairmont Camera: 8-9
Colt Helicopter: 12
Columbia College: 109
Cool Light Co.: 6

Denecke, Inc.: 52
Desmar Corp.: 64
Dreamlight Images: 111
Du Art Film Labs: 11

Eastman Kodak Co.: 45, 61
Egripment: 71
Energy Productions: 110
Excaliber Industries: 57, 115
Expendable Supply Store: 30

FGV Panther: 79, C-4
Film Group, The: 94
Film Search: 45, 114
Film/Video Equipment: 27
Fries Engineering: 101

G.B.C.T.: 94
Gasser: 101
Gene Young Effects: 72
General Camera: 1
General Electric: 46, 47
Geocam Corp.: 70
Great American Market: 62

Harrison & Harrison: 102
Helix: 108

Idaho Film Bureau: 97
Image Devices: 100
Indiana: 95
International Film Workshop: 71
Interformat: 106

J.W.M. Productions: 111.

K & H Products: 94
KEM Elektronik: 88-89
Knox, David: 4

Larry Edmunds Books: 110
Lee Filters: 17
Lee Lighting America: C-3
Leonetti Cine Rentals: 33
Light-Wave Systems: 6
London Int'l Film School: 96
Lowel Light Mfg: 2
LTM Corp: 5

Macgillivray-Freeman Film: 111
Merkel, Daniel: 109
Modern Talking Pictures: 26
Mole-Richardson: 72
Motion Media: 112
Moviecam: C-2
Musco Mobile Lighting: 10

NCE of Florida: 109, 112
Nevada Motion Picture: 22
New Mexico Film Comm.: 20
Newsfilm Laboratory: 112
Norris Film Products: 26

Oppenheimer Camera: 110
Optical Textile: 95
Otto Nemenz Int.: 57

P.E.D. Denz: 51
Pacific Title: 68
Panavision: 24-25
Pasadena Camera Rentals: 85
Peter Lisand Corp.: 60
Peter Robinson Studios: 104
Post Group: 59
Prod. Services Atlanta: 31

R & R Lighting: 36
Rafik: 110
Roessel Cine Photo: 60
Ron Sawade: 109
Rosco: 73
Rusty Geller: 12

SMS Productions: 104
Steenbeck: 93
Stevens Engineering Co: 111
Super 8 Sound: 87
Super Edit Limited: 106

Technological Cine/Video: 102
Texcam: 109
Tiffen Optical: 55

Universal Fluid Head: 114

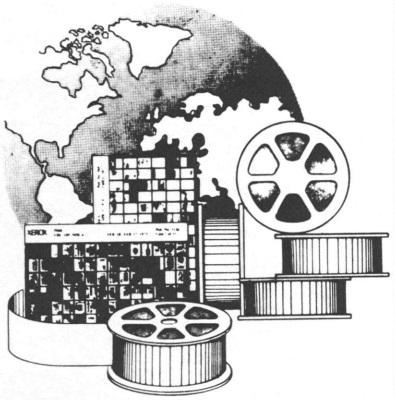
Video Services Unltd.: 106
Video Tape Library: 106
Vinten Equipment: 97
Virgin Island Film Promo.: 82
Vistascope Corp.: 109

Whitehouse Audio-Visual: 109
William McIntire Enterps.: 110
William Sound Service: 110
Wisconsin Film Office: 86

Yale Laboratory: 110

ZGC, Inc.: 111

This Publication....



is Available in MICROFORM

For Complete Information
WRITE :

University Microfilms International

Dept. F.A.
300 North Zeeb Road
Ann Arbor, MI 48106
U.S.A.

Dept. F.A.
18 Bedford Row
London, WC1R 4EJ
England

MOVING?

PLEASE NOTIFY US
6 WEEKS IN ADVANCE

Miss/Mrs./Mr.
Name (please print)

New Address Apt. No.

City State Zip

MAIL TO
AMERICAN
CINEMATOGRAPHER
P.O. Box 2230
Hollywood, Ca.
90028

ATTACH LABEL HERE for address change or inquiry. If you are receiving duplicate copies of AMERICAN CINEMATOGRAPHER, please send both labels. If moving, list new address above.

From The Clubhouse

Thomas Del Ruth was elected to active membership in the ASC in February. Del Ruth, who was born May 1, 1942, in Beverly Hills, entered the film industry as an assistant cameraman 21 years ago and has been a director of photography for the past nine years.

During his six years as an assistant and six years as an operator, Del Ruth worked on such features as *Dr Doolittle, Butch Cassidy and the Sundance Kid, Planet of the Apes, The Front Page* and *Day of the Locust.* Among his mentors were Conrad Hall, ASC, William Fraker, ASC, Bruce Surtees, and Jordan Cronenweth, ASC. His theatrical features as a director of photography include *Cross My Heart, The Running Man, Stand By Me, Quicksilver, Breakfast Club, Impulse, Fandango, Death Wish II* (co-credit with Richard Kline, ASC), and others.

Also active in features, pilots and mini-series productions for all major television networks, Del Ruth photographed *Who is Julia, Spies, Outlaws, Blind Justice, Under Suspicion, Tender Agony, Who Will Love My Children, Six Months With an Older Woman, Paper Dolls, Million Dollar Infield, Help Wanted: Male, The Wonderful World of Phillip Mally, This House Possessed, Simon Eyes, The King and Me; Mark, I Love You; Pirette's Key, The Last Convertible,* and *She's Dressed To Kill.*

Thomas Del Ruth, ASC, and his wife Patricia, live in Sherman Oaks.

• • •

The first dinner meeting of 1988, on February 29, featured a program devoted to electronic imagery and high definition TV. The guest speaker was John Galt, of Northern Light and Picture Corporation, who delved into where HDTV started, what its status is today, and what may lie in the future.

Galt recently completed a 14-hour dramatic mini-series entitled Chasing Rainbows, which was produced entirely in HDTV. Galt revealed many of the pros and cons of working in the electronic medium as compared to film.

A demonstration featuring projection of film to HDTV and HDTV transfers to 35mm film utilized both 24 fps and 30 fps examples. The quality of these excerpts showed dramatically that many of the problems that plagued early efforts at production on tape have been solved.

• • •

John Bailey, ASC, and his wife, Carol Littleton, who is a top film editor, are among the distinguished members of the movie industry who are serving actively in the Twelfth Annual FOCUS Awards. FOCUS (Films of College and University Students) gives hundreds of aspiring young filmmakers and screenwriters from schools across the country the chance to have their work seen and critiqued by some of the leading Hollywood professionals. It also offers an opportunity for students to win over $100,000 in cash, automobiles, and other practical prizes.

FOCUS is sponsored principally by Nissan Motor Corporation in USA, with the active support of Eastman Kodak Company. Amblin Entertainment, Stephen Speilberg's production company, is sponsoring four awards for narrative/live-action film, and John Badham's Great American Picture Show is sponsoring four awards for documentary film. Columbia Pictures is sponsoring four awards in screenwriting, Universal Pictures sponsors four awards for animated or experimental film, and Lorimar Film Entertainment is sponsoring two awards for excellence in film editing. Eastman Kodak sponsors two awards for excellence in cinematography, the FOCUS Institutional Awards (granting film and videotape products to the schools of the first place winners in the narrative, documentary and animation/experimental film categories. FOCUS sponsors its Renee Valente Producers Award for the entry which shows the most outstanding overall film production quality.

Universal

Universal Fluid Heads (USA) Inc.

Tripod systems for cameras from
8 lbs to 50 lbs

Complete Tripod & Head systems
priced from $584.35 to $1,759.00*.
Please call for your nearest Universal dealer

Universal Fluid Heads (USA) Inc.
800C Arcadia Dr.
Huntsville, Alabama 35801
(205) 533-9276 FAX: 533-9463
Universal Fluid Heads Aust. Pty.Ltd.
Sidney, Australia
PH: 02-331-5789 FAX: 332-3937

*Recommended U.S. List Price

The Image Bank
& Film Search.
Representing the finest
Cinematographers
in the world,
throughout the world.

More than ever,
the only stock worth
watching.

THE IMAGE BANK®

Headquarters:
111 Fifth Avenue, New York City 10003 (212) 529-6700
Telex: 429380 IMAGE Fax: (212) 529-8886

TIB, THE IMAGE BANK, TIB THE IMAGE BANK and FILM SEARCH
are Trademarks of Fried Kanney Associates, Ltd. (A/K/A The Image Bank)

©1988 Fried Kanney Associates, Ltd.

FILM SEARCH®
AN IMAGE BANK COMPANY

232 Madison Avenue, New York City 10016 (212) 532-0600
Telex: 4973657 FILMS Fax: (212) 779-9732

9583 Alcott Avenue, #201 Los Angeles, CA 90035 (213) 550-1947

In Memoriam

Ben Colman, ASC, a veteran cinematographer who gained his greatest fame in the television field, died February 22 following surgery. He is survived by a son, two daughters, and his brother, Edward Colman, ASC, also a noted director of photography. Ben Colman was 81 last January 30, and had worked in motion pictures for 65 years. He became a member of the ASC in April, 1980.

Born in Philadelphia in 1907, Colman came to Los Angeles in 1918. The family settled in Edendale, about two blocks from the Mack Sennett Studio. Ben and his older brother often sneaked into the studio and hid inside the huge circular panorama which turned like a merry-go-round behind actors on a treadmill or in vehicles to give an effect of fast movement. Both boys gravitated into studio jobs, Edward as an assistant cameraman and Ben as an actor and stunt man.

Ben Colman eventually became a cameraman as well, working for some of the top men in the field. He was with Arthur Edeson, ASC, on MGM's *Mutiny on the Bounty* in 1935, Karl Freund, ASC, on MGM's *The Good Earth* in 1936 and James Wong Howe, ASC, on Selznick's *The Prisoner of Zenda* in 1938. He was at Warner Bros. for five years with Bert Glennon, ASC, and worked with Joseph Ruttenberg, ASC, Kenneth Peach, ASC, and many others.

"I became a director of photography in 1963 with a contract to make commercials for Video Productions, Inc., the third largest commercial house in the country," Colman said several years ago. "I was under contract to them for five years and made over 400 commercials. One evening in 1969, I stopped by Bill Fraker's office at CBS to congratulate him on his move up to director on *Monte Walsh,* and while I was there a phone call came in from Leslie Stevens asking him if he could recommend someone to photograph a pilot film for him, *McCloud.* Fraker introduced me over the phone and the next morning I was on my way to New York. It was a very successful trip, and my re-entry into regular films from commercials." He also photographed the feature, *Chastity,* produced by Sonny Bono and starring Cher.

The photography of the pilot, which starred Dennis Weaver, created quite a stir and brought a request from Quinn Martin and Burt Reynolds for Colman to do the *Dan August* detective series. Next, he photographed Quinn Martin's *Banyon* series with Robert Forster, followed by the last seven episodes of *Search* and the pilot of *The Delphi Bureau,* with Laurence Luckinbill, both for Warner Bros. He then made a string of movies for television including *The Eyes of Charles Sand* for Warner Bros.; *Death of Innocence,* with Shelley Winters and Tisha Sterling, for CBS; *Face of Fear,* with Elizabeth Ashley and Ricardo Montalban, for Quinn Martin; *Haunts of the Very Rich,* produced by Lillian Gallo; *What Are Neighbors For?,* with Lee Grant and Barbara Feldon, for ABC; and *The Norliss Tapes,* produced by Dan Curtis at Metromedia.

In 1973 he worked on Quinn Martin's *Barnaby Jones* series with Buddy Ebsen, and in 1974-75 he returned to Universal for more *McCloud* episodes. The pilot feature *Switch,* with Robert Wagner and Eddie Albert, and the popular series which followed, were Colman's next projects at Universal. For producer Glen Larsen he shot two alternating series, *The Hardy Boys* and *Nancy Drew Mysteries.* He then did the feature film and pilot, *Battlestar Galactica,* for Larsen, returning later to photograph the last nine shows in the high-budget series.

Twentieth Century Fox called him to do *Mirror, Mirror,* a two-hour movie for television which aired in September, 1979, then he returned to Universal to do the *Buck Rogers* series. Most of his later projects were for Glen Larsen and Universal, including several pilots and the *Fall Guy* stunt series with Lee Majors. △

In Memoriam

William Margulies, ASC, who started as an assistant cameraman at Fox Films 63 years ago, became a leading director of photography in theatrical films and was a pioneer of television photographic techniques, died February 5. He was 82.

Born in New York City on January 5, 1906, Margulies spent most of his life in California. He studied at the Artists League in Pittsburgh and the Chouinard Art School in Los Angeles. As an artist, he was fascinated by the dynamic young art of cinematography, and when the chance to become an assistant cameraman became available, he jumped at it and never looked back. One of his first jobs at Fox was a six month stint on *What Price Glory,* the spectacular war drama directed by Raoul Walsh. He was making $25 per week and recalled that he "worked day and night, including Sundays" the entire time.

Margulies was first designated as director of photography in 1956 on a Howard W. Koch production, *Broken Star,* a Western with Howard Duff. In swift succession he photographed 11 other features for Koch's United Artists unit, including *Revolt at Fort Laramie, Tomahawk Trail, War Drums, The Pharaoh's Curse, Voodoo Island, The Girl With Black Stockings* and *Jungle Heat.*

Meantime he developed a growing interest in the rapidly burgeoning television industry. Among his early TV projects was *Have Gun, Will Travel,* a hit show in which Richard Boone portrayed an intellectual San Francisco man about town who was also a gunfighter in the wilder West. Margulies photographed 25 episodes, two of which brought him Emmy nominations in 1957 and '58.

In 1960 he was nominated for an episode of *The Lawless Years,* of which he photographed 38 episodes, and he began a two-season job photographing Paramount's NBC series, *The Outlaws,* for which he received an Emmy nomination in 1961. His work was seen in *Run For Your Life, Wagon Train, Checkmate, Paris 7000, Philip Marlowe* (18 episodes), *Not For Hire* (24 episodes), *87th Precinct, Emergency, The Investigators* and *Cain's Hundred.*

"In the early days of television it was possible to deliver a show for $15,000 to $20,000," Margulies told *American Cinematographer* in 1974. "We did our own commercials then, too. The cameraman always stressed better photography—and he would generally get his way with the production company and with the director." He also noted that "It's a fact today that many producers and directors, because they are inexperienced, just don't know what they want—and they accept poor work."

Returning to feature production at Universal, Paramount and other companies in 1965, he photographed *The Sword of Ali Baba, The Ghost and Mr. Chicken, Gunpoint, Incident at Phantom Hill; Easy Come, Easy Go; The Love God?, A Man Called Gannon, How To Frame a Fig* and others. One critic named *Gannon* as "the most exquisitely photographed Western in years."

He went back to television production later, working on the *Love Story* and *The Family Kovack* series. He was director of photography on more than 30 theatrical features and some 500 television shows by 1977, when he retired. He is survived by his son, Harold, and a granddaughter and a grandson.

"I've had a long and eventful career," Margulies said. "I've seen a lot of things and I've done a lot of things, but if I had it to do over again, I wouldn't change a thing." △

NEW SHOTMAKER CLASSIC CAMERA CARS. $195.00 PER DAY. COMPLETE.

Including generator, battery pack & towing equipment. Plus 100 FREE MILES per day.

the Shotmaker® COMPANY

A Division of Camera Platforms International, Inc.

28145 Avenue Crocker,
Valencia, California (805) 257-1444

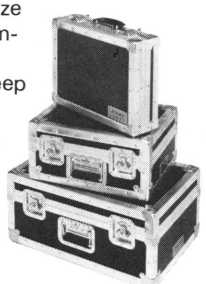
East Coast Operations Center,
Atlanta, Georgia (800) 426-6284

© 1988 Camera Platforms International, Inc.

USER FRIENDLY CASES BY EXCALIBUR

EASY TO ORDER
FAST DELIVERY
PERSONAL SERVICE
FOR EVERY APPLICATION

The Excalibur case is dedicated to your work habits. It is designed to protect and organize your gear. . . to simplify packing and unpacking. . . to keep your tools at your fingertips.



Equipment cases.
AKS cases.
Friendly, professional, tough!

Call today for sizes, colors and prices.

EXCALIBUR INDUSTRIES

12427 Foothill Blvd., Lake View Terrace, CA 91342
818/899-2547

When Timing is Everything

It's no secret that the creative vision of a motion picture cinematographer, at each stage of execution, is like a chain...only as strong as its weakest link. From the first preparation meeting until laboratory completion, each "link" of that chain presents a potential for strength or fracture. Color timing the final answer print occurs at the end of that creative chain. It is, however, a unique function, and should be a right of the exacting cinematographer, worthy of careful negotiation.

In the December 1987 *American* **Cinematographer,** David Pultz reported on the technical realities of modern laboratory color timing. However, the mastery of timing skills can go untapped if the business of timing is not clearly laid out in the cinematographer's agreement. Structuring that business right with the film's producer can be done so that timing participation is financially comfortable and creatively effective for all parties.

Traditionally, a producer would contract for a cinematographer's services, compelling availability for timing, like other functions, at the sole option of the producer. Such deal points as prior notice of time and place and reimbursement of travel costs and living expenses were left to the imagination. Not so today.

On most independent films budgeted over $3 million (below line), and on almost all studio pictures, cinematographers obtain the right to be notified of, be present at, and be closely consulted on the color timing of the final answer print. Further, in the event the cinematographer is unavailable to time due to other professional commitments, the timing right should be deferred, without penalty.

To give those basic timing rights strength, additional supports are needed in the deal. For example, the cinematographer should be initially consulted on the choice of lab and the dailies timer. Also, during photography, there should be projected dailies available for viewing by the entire camera crew to facilitate dailies timing.

Sometime after production, when the producer does notify the cinematographer of the time and place for the timing process, there should be no surprise at the numerous costs involved, and no question as to who is to pay for them. By contract, the cinematographer should not personally incur any costs for round trip air fares, travel connections, hotel bills, meal costs and daily living expenses. During timing, it is not customary for salary to be paid nor companion expenses covered. However, if the timing occurs in the same city as production, then flight and hotel class, as well as meal and living allowances, should be paid at the same rates established for the production period. Those rates would require adjustment if timing is set in a town other than where production took place.

In today's motion picture marketplace, the cinematographer's job of quality control might not end with timing the final answer print. Revenues from the sale and rental of home videocassettes can now exceed theatrical box office receipts. This fact has rapidly elevated the importance of the film to tape transfer The cinematographer of the 1980's and 90's will negotiate a new link in that chain of creative control – the right to be present at and consulted on the film to master videotape transfer intended for duplication use in the home cassette market. This right is already being granted to cinematographers.

Finally, as the major motion picture producer becomes increasingly deregulated by government and merges or consolidates with more traditional business institutions, pressure seems to be mounting toward reducing below-the-line costs in greater proportion to other expenses. In a few instances, major studios have attempted to avoid commitment on reimbursing timing expenses, making timing by the cinematographer financially impractical. Should these attempts become a trend, a vital link in the creative chain could be stressed beyond the breaking point.

—Doug Apatow

(The author is an agent, representing directors of photography in Los Angeles.)

Create the vibrant excitement of a lightning storm, or the subdued pallor of an evening sunset. The formula is simple. State-of-the-art lighting equipment, and the most savvy lighting professionals in the business.

Lee...meeting the toughest demands for lighting equipment and services coast-to-coast.

Whether for a major motion picture, television production, film or video, our goal is total enlightenment. Developing innovative lighting techniques, ensuring hassle-free set-ups, and providing it all within your budget.

Look for the Lee America logo. It stands for quality, service, dependability. Talk to us...you too will be enlightened.

Lee...we speak the language of light.

LEE AMERICA

Lee Lighting America Ltd., 534 West 25 Street, New York, NY 10001 (212) 691-1910 FAX: (212) 645-0196
Lee America West Ltd., 3620 Valhalla Drive, Burbank, CA 91505 (818) 848-1111 FAX: (818) 848-1381

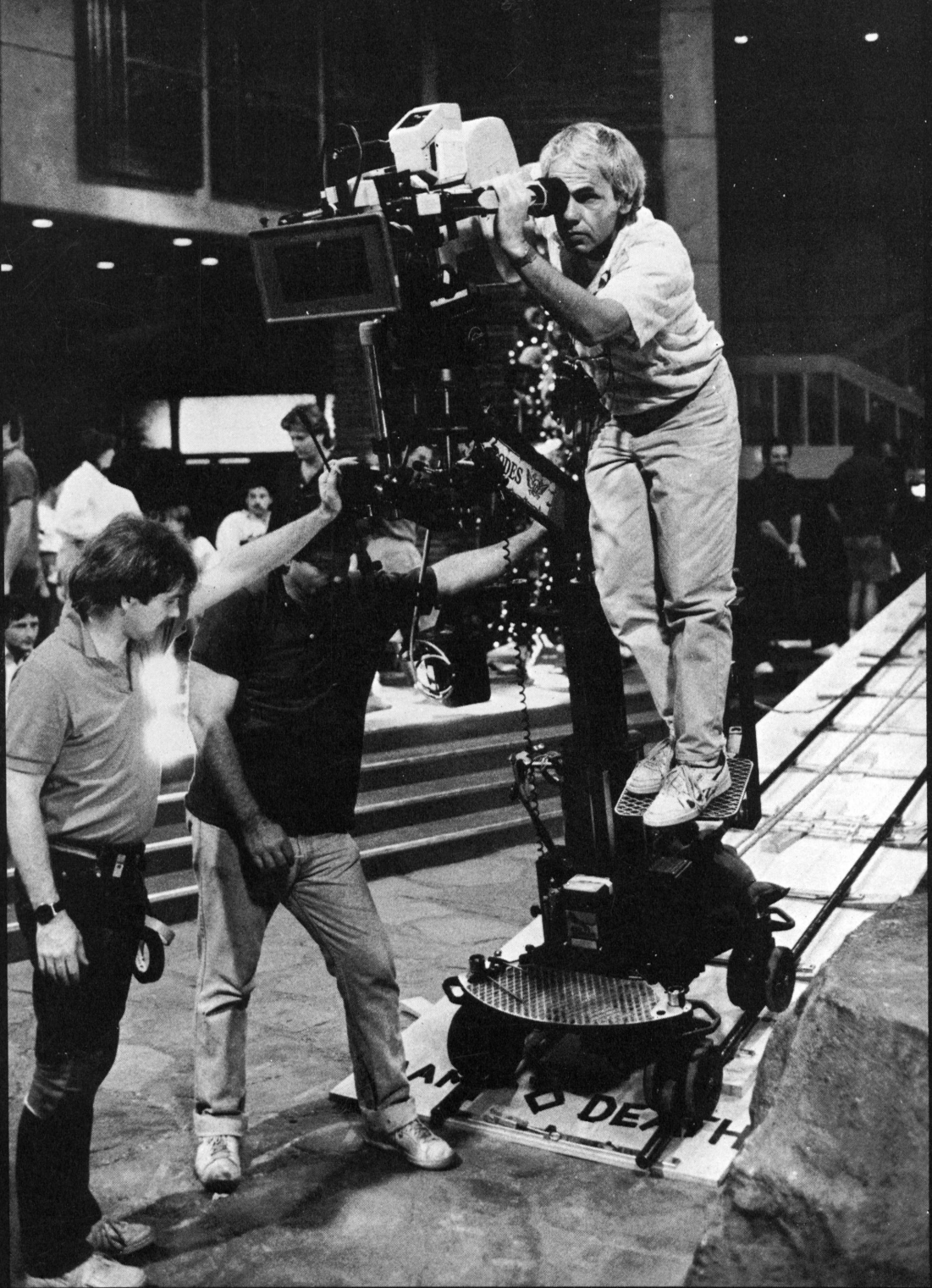


Photo: Peter Sorell

Jan DeBont shooting with FGV PANTHER Dolly and FGV Lightweight Jib on the set of "Die Hard," a 20th Century Fox Feature.

(Release date July 17, 1988)

FGV PANTHER®
CORPORATION OF AMERICA

(213) 850-0246